sazaniassociates

Sazani Trust

Teaching Guide 3

Keeping food safe and clean

Healthy and Sustainable Schools Programme 2nd Edition

Preface

The Healthy and Sustainable Schools Programme is a result of Sazani Associates UK and Sazani Trust Zanzibar's ongoing partnership with the Ministry of Education to improve the quality of education and learning in Zanzibar.

The project is aligned with the Sustainable Development Goals and actively supports teachers and schools in achieving Global Education Target 4.7.

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development (UNSD, 2021).

Focusing on the combined importance of key skills and healthy and sustainable life skills, we have revised and updated our series of fifteen Teaching Guides to support competency based curriculum linked learning.

The teaching materials are suitable for use in the last two years of primary across the transition to the first two years of secondary school.

There are fifteen Teaching Guides in this series, themed around topics that contribute to healthy and sustainable life styles within the context of Zanzibar, as follows:

1. Why we need to eat well
2. Getting enough food
3. Keeping food safe and clean
4. Population and health
5. Water
6. Sanitation and waste
7. Tourism
8. Biodiversity
9. Agriculture
10. Fisheries and marine resources
11. Energy
12. Land transport
13. Land use
14. Climate change
15. Participatory action learning

Each Teaching Guide is themed and contextualized to bring Zanzibar and contrasting localities into a classroom setting and to make learning engaging and relevant to local livelihoods. Activities are gender responsive, participatory and proven to support numeracy, literacy, English language and critical thinking.

For more information please visit our website **www.sazani.org**

Acknowledgements

This series of fifteen Teaching Guides has been adapted from Sazani Associates HSSP topic books by Rajab S. Ali, Safia M. Abdalla, Mwanawije M. Makame, Patrick Rutledge, Nicola Shone, Joshua Shawe and Rashid O. Shehe, with editorial review by Marilyn James and Dr Cathryn MacCallum. Graphic design and layout by Seven Six Design.

Contents

Preface and acknowledgements

1. Introduction

2. Topic overview

3. Personal hygiene

3.1 Clean and safe water

3.2 Preparing food

4. Hygiene around the home

4.1 Toxins and chemicals

5. What we have learned

6. Learning activities

Learning activities – Keeping food safe and clean
Activity 1: **Hand washing techniques with soap and water**
Activity 2: **Hand washing tally**
Activity 3: **Food safety superhero**
Activity 4: **Personal hygiene and food safety habits**
Activity 5: **Thumbs up / thumbs down**
Activity 6: **Personal hygiene throw game**
Activity 7: **Hygienic food preparation techniques**
Activity 8: **Food handling and hygiene comprehension**
Activity 9: **Group discussion and poster**

1 Introduction

The learning content and activities in this Teaching Guide have been designed to be easily integrated across the curriculum. Throughout the resource, knowledge, skills, attitudes, and values – are interlinked and are built into all the topic areas addressed.

We have revised and updated our series of 15 Teaching Guides to support competency-based, curriculum linked learning and development by focusing on the combined importance of key skills of numeracy, literacy, critical thinking and English language for healthy and sustainable lifestyles. The teaching materials are suitable for use in the last two years of primary across the transition to the first two years of secondary school.

Each activity includes icons to illustrate which curriculum area and which key skills are used as summarized in the tables below.

Key skills				
Numeracy	Literacy	Critical thinking	English language	Creativity
				

Activity / STD V–VI	Maths	English	ICT	Civics	Geography	History	Science	Religion	Arabic
Hand washing techniques with soap and water		X	X	X	X	X	X	X	X
Hand washing tally	X	X			X		X		X
Food safety superhero		X		X	X	X	X		
Personal hygiene and food safety habits	X	X	X	X	X	X	X	X	X
Thumbs up / thumbs down	X	X	X	X	X	X	X	X	X
Personal hygiene throw game		X	X	X	X	X	X	X	X
Hygienic food preparation techniques		X	X	X	X	X	X	X	X
Food handling and hygiene comprehension		X	X	X	X	X	X	X	
Group discussion and poster		X	X	X	X	X	X	X	X

Activity / Form 1-2	Maths	English	ICT	Civics	Geography	History	Biology	Chemistry	Physics	Religion	Arabic
Hand washing techniques with soap and water		X	X	X	X	X	X	X	X	X	X
Hand washing tally	X	X			X	X	X	X	X		
Food safety superhero		X		X	X	X	X	X	X		
Personal hygiene and food safety habits	X	X	X	X	X	X	X	X	X	X	X
Thumbs up / thumbs down		X	X	X	X	X	X	X	X	X	X
Personal hygiene throw game		X	X	X	X	X	X	X	X	X	X
Hygienic food preparation techniques		X	X	X	X	X	X	X	X	X	X
Food handling and hygiene comprehension		X	X	X	X	X	X	X	X	X	X
Group discussion and poster		X	X	X	X	X	X	X	X	X	X

2 Topic overview

Key words

Hygienic: conducive to maintaining health and preventing disease, especially by being clean; sanitary.

Germ: a microorganism, especially one which causes disease.

Food poisoning: is an illness caused by eating contaminated food. It's not usually serious and most people get better within a few days without treatment. In most cases of food poisoning, the food is contaminated by bacteria, such as salmonella or Escherichia coli (E. coli), or a virus, such as the norovirus.

Animal proteins: such as meat, eggs, and milk, are complete proteins, meaning they provide all of the essential amino acids our body needs.

It is important that the food we eat and the water we drink is clean and safe. So it is essential to prepare meals in a safe, hygienic way. If germs (such as harmful microorganisms and parasites) get into our foods and drinks, they may give us food poisoning resulting, for example, in diarrhea or vomiting. The people most likely to become sick are young children and people who are already ill, particularly people living with HIV / AIDS.

We can prevent most food poisoning by following a few basic and simple rules of hygiene that aim to:

- Prevent germs from reaching foods and drinks. Many germs come from human or animal faeces. Germs can reach food via dirty hands, flies and other insects, mice and other animals. We can spread germs via dirty utensils and water supplies if they are not protected from faeces.
- Prevent germs from multiplying in foods and reaching dangerous levels. Germs breed fastest in food that is warm and wet (e.g. porridge), especially if it contains sugar or animal protein, such as milk.

To help families have clean, safe foods and drinks:

- Find out about disposal of faeces, hand washing practices, the source and storage of water and ways in which food is prepared. This helps you identify ways in which germs may be reaching food and water, and foods in which germs may be breeding.
- Suggest practical ways to improve water and food hygiene. Some of the suggestions listed in this Teaching Guide may be relevant and useful. But remember not to overburden families with too much advice.

3 Personal hygiene

Key words

Contamination: the action or state of making or being made impure by polluting or poisoning.

Latrine: a receptacle (such as a pit in the earth) for use as a toilet.

Potty: a bowl used by small children as a toilet.

Drinking water: also known as potable water, is water that is safe to drink or use for food preparation.

Borehole: a deep, narrow hole made in the ground, especially to locate water or oil.

Treated water: is any type of hydrogen dioxide (H2O) that undergoes processing to serve a specific end use. The water treatment process involves either the subtraction of components from the water, the addition of components to the water, or both.

Washing hands after contact with faeces

Advise people to:

- Wash hands with clean water and soap (or ashes) – after going to the toilet, cleaning a baby's bottom or cleaning clothes, dirty bed linen or surfaces contaminated with faeces;
- It is most important to wash hands after contact with faeces – before and after preparing food and eating – before feeding a child or sick person (make sure they wash their hands too);
- Dry hands by – shaking and rubbing them together or – using a clean cloth that is kept only for this purpose;
- Keep fingernails short and clean;
- Avoid coughing or spitting near food or water;
- Cover any wounds on hands to prevent contamination of food during its preparation;
- Use a latrine and keep it clean and free of flies;
- Teach small children to use a potty. Put children's faeces in the latrine;
- Clean up faeces from animals;
- Dispose of faeces safely.

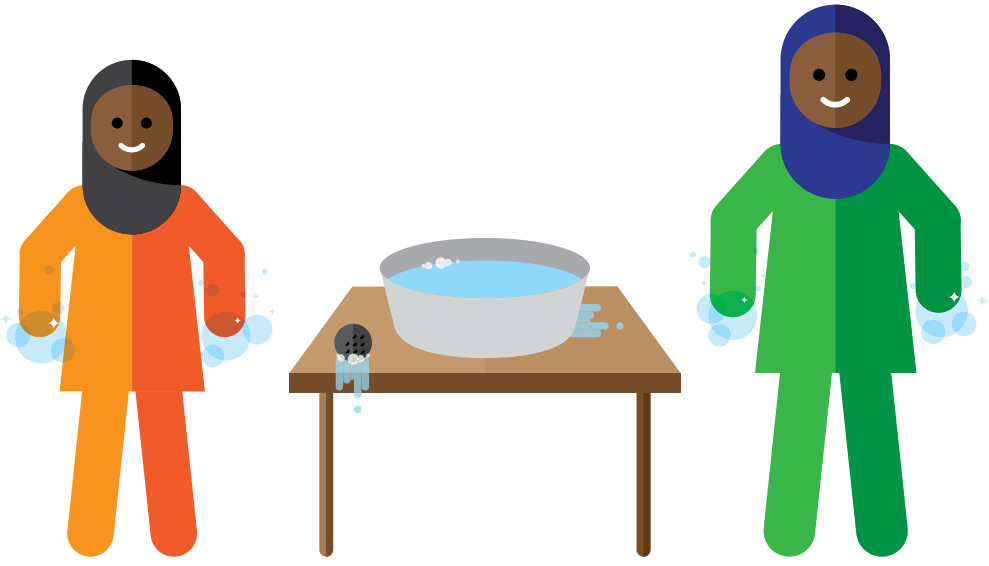


Figure 1. Washing hands helps prevent disease.

3.1 Clean and safe water

Use water that comes from a safe source or is boiled before drinking.

Advise families to:

- Use safe water, such as treated pipe water, or water from a protected source, such as a borehole or protected well. If the water is not safe, it should be boiled (rapidly for one minute) before it is drunk or used in uncooked foods (e.g. fruit juices);
- Use clean covered containers to collect and store water.

Cover foods to keep them clean and safe

Advise families to:

- Buy fresh foods, such as meat or fish, on the day they will eat them. Look for the signs of poor-quality food (see Teaching Guide 2: Getting enough food);
- Cover raw and cooked foods to protect them from insects, rodents and dust;
- Store fresh food (especially foods from animals) and cooked foods in a cool place, or a refrigerator if available;
- Keep dry foods such as flours and legumes in a dry, cool place protected from insects, rodents and other pests;
- Avoid storing leftover foods for more than a few hours (unless in a refrigerator). Always store them covered and reheat them thoroughly until hot and steaming (bring liquid food to a rolling boil).

3.2 Preparing food

Prevent raw meat, offal, poultry and fish from touching other foods

Advise people preparing food to:

- Keep food preparation surfaces clean. Use clean, carefully washed dishes and utensils to store, prepare, serve and eat food;
- Prepare food on a table where there is less dust;
- Wash vegetables and fruits with clean water. Peel if possible;
- Prevent raw meat, offal, poultry and fish from touching other foods, as these animal foods often contain germs. Wash surfaces touched by raw foods with hot water and soap;
- Cook meat, offal, poultry and fish well. Meat should have no red juices;
- Boil eggs so they are hard. Do not eat raw or cracked eggs;
- Boil milk unless it is from a safe source. Soured milk may be safer than fresh milk.

4 Hygiene around the home

Key words

Rubbish: useless waste or rejected matter.

Compost: decayed organic material used as a fertiliser for growing plants.

Aflatoxin: any of a class of toxic compounds produced by certain moulds found in food, which can cause liver damage and cancer.

Pesticides: a substance used for destroying insects or other organisms harmful to cultivated plants or to animals.

Advise families to:

- Keep the surroundings of the home free from animal faeces and other rubbish;
- Keep rubbish in a covered bin and empty it regularly so it does not attract flies;
- Make compost for the garden with suitable waste food, garden rubbish and animal faeces; composting destroys germs in faeces.

4.1 Toxins and chemicals

Food and water is unsafe if it contains toxins or dangerous chemicals. A toxin called “aflatoxin” is made by a mould that grows on cereals and legumes. Eating aflatoxin can make us very ill.

Advise families to prevent moulds from growing by drying crops thoroughly and storing them in a dry place. Warn people not to eat moulds food or give them to animals, they can add them to compost.

Pesticides and other harmful agricultural chemicals may get into food or water and cause poisoning if:

- The chemical is not used in the recommended way;
- The empty containers are used for food or water.

Advise people to:

- Follow carefully the instructions for using chemicals;
- Be strict about keeping chemicals away from children;
- Never put food or water into containers that have been used for chemicals;
- Wash hands after using chemicals, and wash any foods (e.g. fruit) that have been sprayed with them.

5 What we have learned:

- Poor hygiene can lead to food poisoning.
- We can maintain good hygiene by washing our hands properly after going toilet, disposing faeces properly and keeping away and covering up wounds if we injure ourselves.
- We should buy good quality food and store it properly so that we consume food that is safe for our body.

Knowledge and skills	Attitudes and values
Understand why it is important to prepare food in a hygienic way and learn about how to implement good hygiene.	Appreciate the importance of preparing food in a hygienic way and how good personal hygiene prevents illness and disease.

6 Learning activities

Before sharing this information with students, you may need to:

Find out:

- What the sources and quality of household water supplies are.
- What the local hygiene practices are.
- How food is stored and prepared.
- What the principal unhygienic food and personal practices in the area are.
- What people know about keeping food and water safe and clean.
- How agricultural chemicals are used and how they are handled.

Prioritise:

- Decide which information is most important to share with the class.

Choose communication methods

- For example: health talks, discussions and demonstrations (e.g. washing hands), with students and young children.

How How How activity

Refer to the **How How How activity** detailed in the "Participatory Action Learning" book to help the student explore different ideas and concepts and challenge each other's points of view.

Activity 1: Hand washing techniques with soap and water

Resources required:

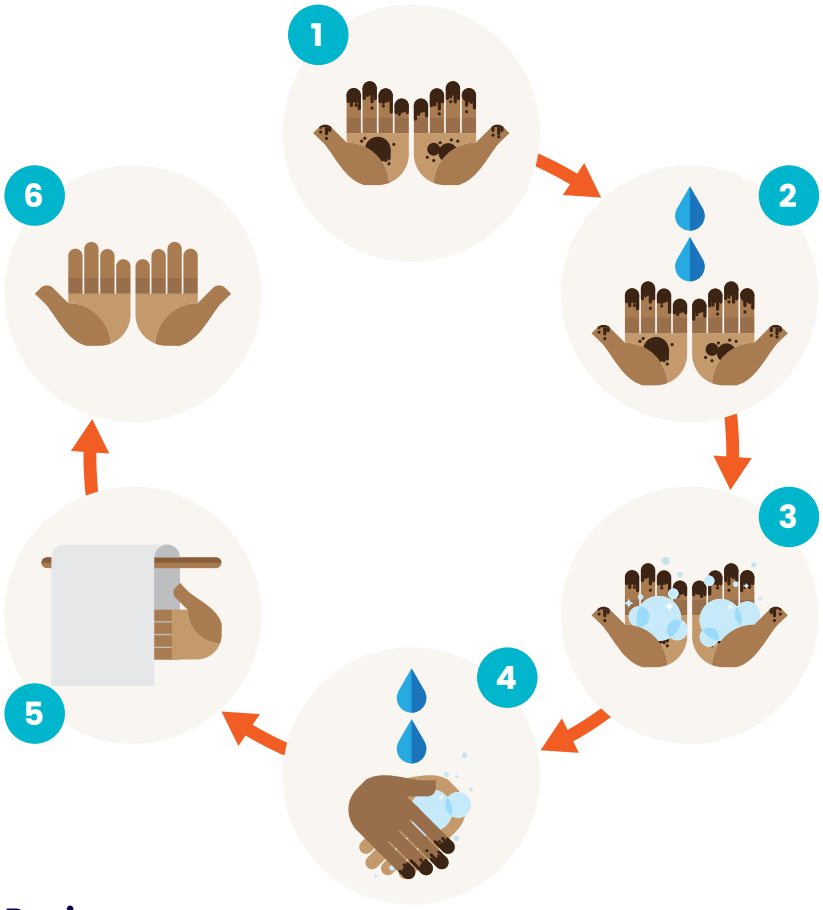
- Paper
- Pens and pencils
- Teachers can print the below chart out for students to study

Set up:

This can be a class shout out exercise or independent work.

Activity:

- Ask learners to label the stages of hand washing by shouting out or making a poster as seen below:



1. **Start.**
2. **Wet hands.**
3. **Soap for 20 seconds.**
4. **Scrub back of hands, between fingers, under nails and thumbs.**
5. **Towel dry.**
6. **Finish with clean hands.**

Review:

The following questions or points may be used to review the activity:

- Do the children agree with all of the instructions?
- Does anything need to be added?
- The posters can be put up in school toilets to remind small children about how to wash their hands, or a poster for an adult who works preparing food in a restaurant.

Activity 2: Hand washing tally

Resources required:

- Paper
- Pens and pencils

Set up:

Ask children to work individually and draft a tally like below:

Reason for washing hands	After using the bathroom	Before preparing or eating food	After playing outside	Add more	Add more
Number of times in a day	||||	|||	|		

Activity:

- Each child can keep a record of their own hand washing using their tally chart, noting the number of times they wash their hands and for what purpose (e.g. before eating, after touching pets, after going to the toilet), ask them to add their own reasons in as the day goes on.
- This information can then be discussed in school and the results presented to the class.

Review:

The following questions or points may be used to review the activity:

- Ask children to survey the rest of the class on when they wash their hands and how regularly.

Activity 3: Food safety superhero

Resources required:

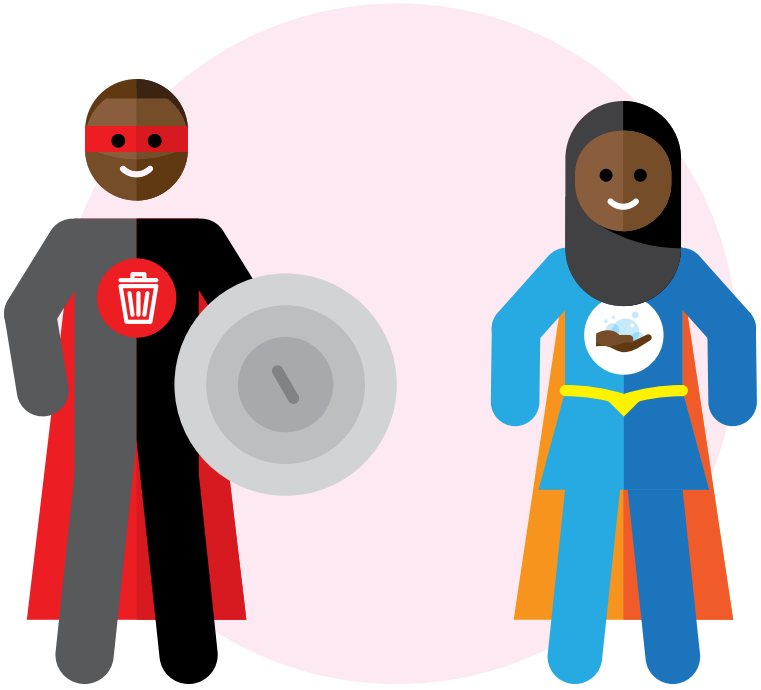
- Paper
- Pens and pencils

Set up:

- Ask learners to work alone or in small groups.

Activity:

- Using what they have learned about food cleanliness and safety, ask the children to design their own food safety superhero, giving him / her a name.
- For example, Bobby the Bin-Battler could be in charge of keeping lids on rubbish bins; Humid the Hand-Wash Hero could help remind us to wash our hands before eating.



Review:

The following questions or points may be used to review the activity:

- Think about what job your superhero could do and how this could be reflected in what he / she looks like.

Activity 4: Personal hygiene and food safety habits

Resources required:

- Paper
- Pens and pencils
- Teachers can draw a mind map on the board or print out a blank one as below

Set up:

Ask learners to work in pairs or small groups.

Activity:

- Draw on the board or piece of paper a spider diagram and ask the pupils to complete it in pairs.

Review:

The following questions or points may be used to review the activity:

- How many of these things do learners do in their households?
- Are there any things learners can now do more of in their households?

Activity 5: Thumbs up / thumbs down

Resources required:

- Paper
- Pens and pencils

Set up:

Tell learners they are going to hear you read some statements relating to keeping food safe and clean.

Activity:

- Ask them to listen carefully then put their **thumbs up if they think the statement is correct** and their **thumbs down if they think that it is incorrect**.

Statements

- You must wash your hands with clean water and soap before eating or preparing food.
- It is fine to let animals into places where food is prepared.
- You can reheat food as many times as you like.
- Make sure food is stored in clean containers.
- Rubbish should be kept in a covered bin.
- You do not need to wash fruit and vegetables before eating or cooking with them as long as they look clean.
- Raw meat and cooked meat must be stored separately.
- When you are preparing food you don't need to cover cuts unless they are bleeding.

Review:

The following questions or points may be used to review the activity:

- Discuss each statement once the children have 'voted', reinforcing the key food safety messages.
- Children could then work with a partner to create their own true / false statements and work with another group to solve them.

Activity 6: Personal hygiene throw game

Resources required:

- Paper
- Pens and pencils
- Tennis ball

Set up:

Ask learners to stand in a circle.

Activity:

- The teacher begins by making a statement about how he / she practices home hygiene or personal hygiene (e.g. 'I wash my hands before I eat', 'I keep a lid on my bin').
- The ball is then thrown to a student who must make a different statement about the same topic, then passing the ball on to another student, etc.
- Ask learners to then sit back down and list as many as they can remember from the game in a set amount of time (5 minutes).

Review:

The following questions or points may be used to review the activity:

- This can also be done for food safety habits.

Activity 7: Hygienic food preparation techniques

Resources required:

- Paper
- Pens and pencils

Set up:

This activity can be done by copying and filling out the table and with a physical movement activity.

Activity:

- It is important to prepare your food hygienically. Why? Discuss.
- Write each statement in column 1 on a sheet of paper.

Column 1	Column 2
1. Wash vegetables in cold water.	
2. Cook vegetables in a little water.	
3. Store leftover food carefully.	
4. Wash hands before handling food.	
5. Store food safely before cooking.	
6. Eat food soon after cooking.	
7. Prepare vegetables and fresh starchy roots immediately before cooking	
8. Wash knives and utensils.	

- Ask 8 pupils to stand at the front of the class holding each statement.
- Ask the rest of the class to suggest where each pupil should stand so that the statements are in the correct order.
- Place the following statements in the correct order in column 2.

Review:

The following questions or points may be used to review the activity:

- Did the learners find that easy or difficult?
- Can they work in pairs to create the same column sort activity for hand washing?

Activity 8: Food handling and hygiene comprehension

Resources required:

- Paper
- Pens and pencils

Set up:

Learners can work independently.

Activity:

Discuss the below questions:

- Why wash vegetables? (to remove dirt, stones etc.)
- Why cook vegetables in a little water? (to retain the nutrients)
- Why store left over food carefully? (to avoid flies/insects contaminating the food)
- Why wash hands before handling food? (to avoid passing germs from hands to food)
- Why store food safely before cooking? (especially meat which can quickly go off and cause food poisoning)
- Why eat food soon after cooking? (more nutrients are available)
- Why prepare vegetables and fresh starchy roots immediately before cooking? (to retain the nutrients)
- Why wash knives and utensils? (especially if using the same knives for cutting meat and preparing vegetables)

Review:

The following questions or points may be used to review the activity:

- Can learners think of any other questions?

Activity 9: Group discussion and poster

Resources required:

- Paper
- Pens and pencils

Set up:

Ask learners to get into small groups or pairs.

Activity:

Ask learners to consider the following questions for discussions in their groups or pairs:

- Why is it important to prepare food in a hygienic way?
- When should we wash our hands? How should we wash and dry our hands?
- Why is it important to get rid of faeces from hands? How can we do this?
- Is the local water supply safe to drink? If not, what should we do?
- Is the local milk safe to drink? If not, what should we do?
- Why should we prevent raw meat, poultry and fish from touching other foods? How can we do this?
- How should we store different types of food (e.g. vegetables, meat, cooked foods)?
- How should we deal with waste from food?
- What should we do with mouldy food?

Review:

The following questions or points may be used to review the activity:

- Ask learners to create a poster on a theme from the questions.

Sazani Associates

UK office
Units 1 & 2 Darkgate Buildings
3 Red Street
Carmarthen
SA31 1QL

Zanzibar office
SH/S/C/091
Mombassa Kwa Mchina
P.O. Box 3720
Zanzibar

Tel: **UK: 0044 (0)1267 243576**
Web: **www.sazaniassociates.org.uk**
Email: **info@sazaniassociates.org.uk**