SET
Skills for Employment Tanzania

Training Manual

Crispy Snacks

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DISCLAIMER

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Swisscontact

Swisscontact works in Tanzania as a facilitator in skills development to complement government efforts in youth empowerment.

Economic, social, and academically disadvantaged youth are supported through tailor-made vocational skills development opportunities to increase their employment chances and entrepreneurship opportunities. Projects are guided by a unique youth and market-driven learning group model, which is focused on sub-sectors and jobs which have potential to offer (self-)employment opportunities. These are agriculture/agribusiness, and other rural trades or services.

Swisscontact projects in Tanzania employ an Inclusive Markets system approach which considers the limits and opportunities of the existing vocational skills development system. Projects seek to improve the prospects of self-employment among the youth through a sustainable and systemic contribution to improved access, relevance, and quality of vocational skills development. Since ownership is critical for sustainability, our projects apply a participatory approach which involves joint action planning with partners.

Introduction for Trainers

This training course is designed to guide participants in the production of crispy snacks, a growing entrepreneurial opportunity in Tanzania. The training targets young, economically disadvantaged individuals, particularly women and out-of-school youth from rural and peri-urban areas. These participants often have limited formal education and face significant economic challenges. The training equips them with practical skills to produce a variety of snacks, which can be sold to generate income, either directly to consumers or through local networks.

This training fits within the broader Swisscontact initiative to promote self-employment and improve livelihoods through simple yet market-driven vocational skills. The training emphasises hands-on learning, with 70% of the course dedicated to practical exercises, allowing participants to practice making and packaging snacks in small groups.

By the end of this 10-day course, learners will be able to produce a variety of crispy snacks from locally available ingredients, manage small-scale snack production, and understand basic marketing and sales techniques. Participants will also explore secondary opportunities, such as sourcing raw materials, supplying packaging, or creating local distribution networks.

As trainers, your role is crucial in providing these participants with the confidence, knowledge, and skills they need to succeed in the snack production business.

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1 Module 1: Introduction

1.1 Introduction to crispy snacks

What are crispy snacks?
Crispy snacks include a range of treats that are popular as in-between meals snacks for many markets such as school children leaving school at the end of the school day; people in transit on busses or driving trucks, or simply for something to eat with family or friends. They are usually made of a vegetable or starch which has some basic processing before being fried then seasoned.

What is the general demand for crispy snacks?
Crispy snacks are widely consumed across different age groups They are popular for all ages but there are some preferences in the market such as:

- **Crisps**: everybody loves crisps! These are available in a range of vegetables and flavours.
- **Tambi**: young people
- **Popcorn and peanuts**: more popular with school children

Why is this a business opportunity?
The popularity of crispy snacks has created a strong demand, as people are consistently eager to buy and enjoy them. A key advantage of these snacks is their long shelf life, allowing them to be sold later if not purchased immediately. This makes it possible to supply shops or roadside kiosks without the risk of the snacks spoiling. As a result, they can still generate income weeks or even months after production, with minimal waste or product spoilage.

Types of crispy snacks
- **Crisps**: these are made from a range of vegetables such as Irish potato, sweet potato, Orange-Flesh Sweet Potato (OFSP), banana, cassava and breadfruit.
- **Tambi**: this is a fried noodle (made from either wheat or lentil flour), flavoured with seasoning and sometimes mixed with other ingredients.
- **Groundnuts**: groundnuts may be roasted or coated with an egg-flour mixture (karanga za mayai) for an extra crispy layer.
- **Visheti, cheuro, popcorn**: flavoured with either sweet or salty flavours.

Other business opportunities:
For those in the business of making and selling crispy snacks, there are additional related opportunities to earn extra income by using the snacks as the main focus. These other opportunities include:
- Selling complimentary items such as drinks

- Supplying materials to other crispy snack producers: e.g. equipment, packaging, labels, seasoning/flavours for crisps, cooking oil, source of energy, basic first aid items/kits
- Training others to make snacks
- Sourcing primary product: working with farmers to produce e.g. Irish potatoes, Orange-Flesh Sweet Potatoes (OFSP)
- Creating a community distribution network: street sellers
- Soap manufacturing from used cooking oil (own oil and oil from other sources like other snack producers, fried fish sellers, etc).

1.2 Benefits and risks of making crispy snacks

Like all business opportunities, there are both benefits and risks to becoming a producer of crispy snacks. When deciding if this is a business opportunity, the following should be considered:

Benefits	Risks
• Profitable and good demand for products • Low initial startup costs • Quite easy – not a complex skill • Lifetime skill, will not forget and can use again in the future • Can work from home, around the needs of children • Product with a shelf-life (does not spoil immediately therefore has sales life)	• Competition in the market • Price fluctuations of raw materials • Fluctuations in demand; school holidays affect sales to school children • Product loss due to expiry dates • Products may spoil if stored incorrectly postproduction • Health risks: long hours = physical demand, possible injuries or accidents (hot oil, cutting equipment); smoke from wood fires

1.3 Characteristics of a snack producer

Crispy snack producers need certain characteristics to succeed; some of these important characteristics are:

1. **Personal characteristics:**
- **Hard working** to be able to produce lots of snacks to sell
- **Well organised**
- **Time management**: working quickly and efficiently.

2. **Physical and health**:
- **Good health** and energy
- **Clean; good personal hygiene**, especially for handling snacks that customers will eat.

3. **Business skills:**

- **Good with people**: selling products to different markets e.g. children, general community, long-distance truck drivers, etc.
- **Communication skills**: for buying materials, selling to customers, negotiating with shops to sell products.
- **Sales skills** for direct selling
- **Numeracy** for financial management and profitability

1.4 Managing snack production at home

Most people who make crispy snacks do this from where they live. This means that they need to manage a few domestic issues while ensuring good quality, and safe foods for public customers to eat. The following hygiene and safety elements must be followed:

- Manage family, children and animals in the production area – keep them away to ensure food safety and sanitation, and personal safety from risks such as hot oil.
- Keep snack production away from other commercial activities such as farming.
- **Safety**:
    - Ensure sufficient ventilation from stoves, fires, and frying activities (fumes and smoke)
    - Maintain gas equipment to prevent leaks or risks of explosion

1.5 Business licensing and tax

A crispy snack producer may officialise his/her business. There are several benefits to this:

- Makes applying for small loans easier
- Provides a “quality product” certification
- May qualify for subsidies under SIDO
- May get business training from SIDO and other stakeholders

The important steps to officialise the business are as follows (for information purposes):

1. Register a busines name with BRELA (Business Registration and Licensing Agency)

2.Get Tax Identification Number (TIN) for the business from the Tax Registration Authority (TRA)

3. Get business licence from the local Council

4. Apply to SIDO for business assessment/evaluation; submit required documents with fee. SIDO inspection visit and if meeting requirements, receive a letter of compliance.

5. Apply to Tanzania Bureau of Standards (TBS) for product certification.

Businesses looking to operate legally must get a business license from their local authority. The purpose of a business license is to ensure that the business complies with local regulations and operates in a manner that is safe for the public. Most micro enterprises will not be licensed, but if the owner wants to get a loan/borrow money for e.g. equipment or aims for product certification, then they usually must produce a business license. In this case, they will need to be registered with the local municipality.

Ultimately, they may also have their product certified by TBS. The process is a bit complicated for a small business, and it is best to first have the Small Industry Development Organisation (SIDO) assess the production facility. This means that certain criteria or requirements must be met, such as:

- have a separate production facility (not a domestic kitchen due to family and children's issues)
- conduct regular health checks of the producer and staff
- use of Personal Protective Equipment (PPE), e.g. hair coverings, gloves to handle unpackaged food

SIDO conducts an evaluation of the producer, the process and the production facility and provides advice and guidance to the producer. If SIDO requirements are met, they issue a letter of compliance for the producer. The SIDO letter of compliance makes application for TBS certification much easier.

2 Module 2: Hygiene and safety

2.1 Personal hygiene

It is important to follow good personal hygiene when making any food that the public will be eating. Good personal hygiene includes:

- **Body hygiene**: bathe/wash daily; brush teeth daily; clean, short nails – no nail polish; use deodorant.
- **Clothes/dress**:
    - wear closed **shoes** to protect against splashes of hot oil
    - wear an **apron** for heat protection or to protect clothes
    - cover **hair** to prevent it from falling into food products
    - wear **gloves** for handling and packaging processed food
    - wear a **mask** during production and packaging
- **Hand washing**: wash hands before you start working with food; after going to the toilet, after touching any animals or rubbish, handling children.
- **Personal habits**: cough or sneeze into your elbow, and never onto any food items. Avoid touching hair, nose, face, etc. while working with food.
- **Personal presentation** to customers: neat, tidy, clean

The following guidelines on **Dos's and Don'ts** will help you work hygienically when making crispy snacks:

Do's	Don'ts
• Wash every day. • Wash hands correctly and often! • Wear clean clothes or a clean apron when making food and change your apron if it gets dirty. • Tie your hair up or wear a hair covering. • Keep your nails short and clean. • Cover any injuries or wounds with a waterproof bandage/plaster. • Cough or sneeze into your elbow. • Keep children and animals away from spaces where you are cooking	• Don't cook food for selling when you are sick • Don't wear jewellery, rings and watches while working in the kitchen. • Don't touch your nose, hair, mouth, and sores when making snacks. • Don't handle ready-to-eat food with bare hands. • Don't cough or sneeze on food. • Don't taste food with fingers or utensils you are cooking with. • Don't let pets or other animals into the kitchen. • Don't cook barefoot or in open shoes – hot food or dropped utensils can hurt your feet!

2.2 Production hygiene

Good hygiene practices in the production of crispy snacks include:

- Good hygiene practices
- Cleaning.
- Food storage
- Family hygiene
- Pest control

2.2.1 Bacteria

Bacteria are tiny living organisms that cannot be seen with the naked eye. They are found everywhere, including in food, water, and on surfaces. Some bacteria are harmless, but others can cause food poisoning if they grow on food.

When making crispy snacks at home, it is important to manage bacteria because:

- **Bacteria grow in warm, moist places**: When ingredients like potatoes, flour, or oil are left in warm conditions or handled with dirty hands, bacteria can multiply quickly. This can make the snacks unsafe to eat.
- **Good hygiene reduces bacteria**: Washing hands before handling ingredients, cleaning the cooking area, and keeping utensils clean help stop bacteria from spreading.
- **Proper storage**: Once the crispy snacks are made, they should be stored in clean, dry, sealed containers. Bacteria need moisture to grow, so keeping snacks dry prevents bacterial growth.

2.2.2 Good Hygiene Practices

Important things to do, we can stop bacteria from spreading by doing the following things in the kitchen:

1. Handle food as little as possible.
2. Keep food covered or wrapped.
3. Store and keep cooked food separate from raw foods.
4. Use different utensils for raw and cooked food.
5. Store different types of food separately.
6. Clean utensils and equipment properly after using them for each food item.
7. Wash fruits and vegetables in clean water: make sure to wash away any soil as this contains bacteria.
8. Wash your hands:
    - Before you start working
    - After unpacking food supplies
    - After handling raw foods
    - After handling rubbish
    - After smoking

- After coughing or sneezing
- After handling money
- After going to the toilet

Important!

Do not allow any animals in the production area as they spread dirt, hair, and bacteria into the area and often onto the food. Animals include cats, dogs, chickens, goats, sheep.

2.2.3 Cleaning

It is important to work in a clean environment. What you can do to keep your kitchen clean while you are working:

- Clean as you go! If you use something, clean it immediately or give it to someone who does the cleaning.
- Throw rubbish away – in the waste bowl or in the bin.
- Wash the counters after every time you use them.
- Keep your workstation and the kitchen tidy – put all things away where they belong.
- Immediately put chilled foods back in clean, covered containers in a cool place out of the sun once you have used what you need.

Clean dishes and cooking utensils and equipment

A cook should always work with clean cooking utensils and equipment:

- Clean cooking equipment as soon as possible after using it to prevent flies, cockroaches, and other pests.
- Clean dishes and utensils thoroughly using proper equipment: *clean* cloths and detergent. Wash the cloths after use, wring them out and dry them in the sun after using them.
- Rinse dishes and utensils with clean water to remove the soap.
- Dishes and utensils should be dried properly before being stored and used: dry them in the sun, in a clean place, or using a *clean* cloth.

2.2.4 Food Storage

Follow food storage principles, for example, FIFO (first in first out). Apply the FIFO principle to ensure that older items are used before newer ones, reducing the risk of food waste. Always use older stock before using new stock. It is important to learn how to store food properly, as incorrect storage could lead to food poisoning or a loss of ingredients and that will affect the profits of the business.

Different foods need to be stored differently:

1. **Vegetables:** Root vegetables must be stored away from other foods as they carry bacteria from the soil. Root vegetables can be stored for three to five days.
2. **Flour**: airtight, moisture-proof containers on a cool, dark shelf, off the floor to prevent pests and dampness.
3. **Spices**: put spices like sugar, salt, etc. into clean, sealed containers and write the names on the containers. This prevents moisture from getting to the spices and then they won't clump together.

2.2.5 Family Hygiene

When making snacks at home, it is important to keep the area clean, especially if children are around. Make sure that:

- Diapers are not changed where the food is being made.
- Hands are washed after changing diapers or looking after sick children.
- Sick children do not come into the place where snacks are being made.
- Children do not cough, sneeze, or wipe their noses near the food.

This helps keep the food safe for everyone.

2.2.6 Pests

Prevents pests by:

- Putting screens on windows that can open.
- Clean up any mess or spills in the food store.
- Keep food covered and sealed against ants, cockroaches and flies.
- Check regularly for any signs of pests – droppings, dead pests, etc.

2.3 Safety in snack production

2.3.1 Careful handling of cutting equipment: knives, slicers

You should always handle knives and cutting implements like mandolins safely so that you do not get cut. The following guidelines will help:

- Concentrate on what you're doing when using a knife/slicer. Do not chat with other people when using sharp equipment; pay attention to the task you are busy with.
- Always use sharp knives and slicers. Dull blades cause more accidents because they are harder to work with and require more pressure. Sharp knives do not slip as easily and cut easier.
- Do not hold food in your hand while you cut it. Always cut on a cutting board. Always keep your fingers on top of the blade in case it slips.
- Keep knife handles free of grease or other slippery substances. Clean knives are safer to use and help prevent cross-contamination.

- Keep knives away from the edge of the counter to lessen the chance of being knocked off. Step out of the way if a knife is dropped. Never try to catch a falling knife or blade.
- Use knives for their intended purpose. Do not use knives as can openers, screwdrivers, staple removers, or box cutters.
- Wash knives immediately after use. Do not leave knives in a sink of soapy water where they cannot be seen. Keep the sharp edge of the knife away from you when washing.
- Store knives with the blade down and the handle up so you can take hold of the handle when you need it. Do not store knives in a drawer mixed up with other utensils.
- Only use knives with handles so that you can hold them properly and safely.
- Store knives in a knife rack or knife drawer when not in use. Do not store knives with other small objects or leave them lying around.

Quick Tips:
- Carry a knife by the handle with the tip down and the blade turned away from your body.
- Put a damp cloth under the cutting board to prevent it from sliding.
- Keep the point of the knife on the cutting board while you chop.
- Cut downward and away from your body.
- Use your free hand to firmly hold the food item against the cutting board, making sure fingers are out of the way of any slips that might happen.

2.3.2 Types and use of PPE

Personal Protective Equipment (PPE) refers to any equipment or clothing worn to minimise exposure to hazards that can cause injuries or illnesses. The following are important PPE items to have when making and packaging crispy snacks:

- Apron to protect from splashes
- Closed shoes to protect from splashes
- Thick cloths for handling hot containers
- Gloves for handling food for sale

2.3.3 Correct storage and use of chemicals

Safely using and storing chemicals are important on food premises. Chemicals are necessary for cleaning and sanitising but can be harmful if mishandled. Proper handling and storage are essential to protect employees, customers, and the public.

Chemical safety do's
- Store chemicals away from food storage and contact areas.
- Label all chemicals clearly.
- Wash your hands after handling chemicals.

Chemical safety don'ts

- Don't clean or use chemicals near food.
- Don't mix chemicals together.
- Don't use a chemical container to store food.

Using chemicals properly can help keep you, your customers, and your employees safe.

2.3.4 Keep floors dry

Keeping floors dry is important in the production area as it plays a vital role in preventing accidents and ensuring a safe working environment. Slippery floors (from splashed oil or water) can lead to slips, trips, and falls, resulting in injuries. Dry floors reduce the risk of accidents and improve overall safety in the area.

2.3.5 Separation of electrical equipment from water

It is important to **keep electrical equipment away from water** to prevent accidents. Water and electricity can be very dangerous when combined and can cause **electric shocks**, **fires**, or even **explosions**.

- Always keep electrical items far from **sinks, basins**, and **buckets of water**.
- **Unplug** equipment before cleaning it, and make sure it is completely dry before plugging it back in and using it.
- Use **waterproof covers** for protection, especially in wet or rainy conditions, and **check the equipment regularly** to make sure wires and plugs are in good condition to avoid accidents.

2.4 First aid

2.4.1 First Aid Kit

A **first aid kit** is essential because it provides quick access to basic medical supplies that can treat minor injuries quickly. Having a small but well-stocked first aid kit allows immediate treatment for common injuries like cuts and burns.

If basic first aid supplies are not available when needed, even small injuries can become dangerous. For example:

- **Untreated cuts** can get infected, leading to more serious health issues.
- **Burns** need immediate care to minimize damage to the skin.

What you need in your first aid kit:

- Disinfectant to clean any wounds e.g. Dettol, Savlon
- Antiseptic ointment e.g. Betadine; Savlon ointment
- Plasters to dress any wounds (cuts)

- Dressings/Gauze to cover any bigger cuts that a plaster may not cover, or stop bleeding
- Burn ointment to apply to burns
- Painkillers e.g. Paracetamol

It is important to check and restock a first aid kit regularly; it should be checked at least once every three months if it is not used often.

2.4.2 Basic first aid for cuts, burns and injuries to the eye

Cuts

1. Wash your hands with soap and water
2. Stop the bleeding, put pressure on the cut with a gauze pad or clean cloth.
3. Clean the wound: once the bleeding has stopped rinse the cut under clean running water.
4. Remove any dirt or debris, with a sterilised tweezer
5. Apply disinfectant with cotton wool
6. Apply an antiseptic ointment
7. Cover with a plaster for a small cut
8. Put a bandage on if the cut is deep or if it is on a part of the body that might get dirty or rub against clothes, change the bandage if it gets wet or dirty.
9. Call a doctor if the cut is very deep or long, or if it doesn't stop bleeding.

Burns

There are different types of burns, first-degree burns are painful but minor they may turn red and swell. Second-degree burns form blisters, the skin may be very red and painful. Third-degree burns make the skin look white or charred.

How to treat minor first-degree burns and small second-degree burns:

1. Place the burned area under running cool, not cold water for 5 mins.
2. Apply an antiseptic/ antibiotic ointment to soothe the area.
3. Loosely wrap the gauze bandage around the burn.
4. Take Ibuprofen to relieve pain.

Never pop any blisters that form, you could damage the skin and cause an infection. For any third-degree burns go to the doctor immediately. When treating burns, be careful with natural remedies. But honey is a safe choice that can help heal burns.

Injuries to the eye: splashes of hot oil or chemicals

First aid care for injuries to the eye:

1. **Use clean water**: Pour clean, cool water into a small, clean container like a cup or bottle.
2. **Wash the eye gently**: With clean hands, gently scoop the water over the affected eye to flush out any chemicals or soothe burns from hot oil.

3. **Tilt the head**: Tilt the head so the affected eye is lower, allowing the water to run out without contaminating the other eye.
   Pour such clean water over the eye until it is well flushed. This may take 10 – 15 minutes of trickling the water over the affected eye.
4. **Avoid rubbing the eye**: Do not rub the injured eye, as this can make the injury worse.
5. If the eye is red and damaged, cover it with a dressing and bandage to rest it and let it heal.
6. **Seek medical help**: After rinsing, if the pain continues or vision is affected, go to a doctor or clinic immediately for further care.

Natural remedies for minor cuts and burns in Tanzania

In Tanzania, there are several traditional remedies and natural methods that are commonly used to treat minor cuts and burns. These remedies are often based on locally available plants and household items and can be used if proper medical supplies are not available.

1. **Honey (Asali)**:
   Honey has natural antibacterial properties and is often used to treat small cuts. Applying a thin layer of **honey** over the cut can help clean the wound and keep it moist, promoting healing while preventing infection. It can also be applied to minor burns to reduce pain and inflammation.

2. **Aloe Vera (Mshubiri)**:
   Aloe vera is commonly found in many Tanzanian households and is known for its healing properties. Applying fresh **aloe vera gel** directly to a minor burn can help soothe the skin, reduce pain, and promote faster healing. It's also effective for small cuts because it acts as an anti-inflammatory and helps prevent infection.

3. **Turmeric (Manjano)**:
   Turmeric powder mixed with a little water can be applied to small cuts to reduce inflammation and fight infection. Turmeric contains curcumin, which has powerful healing properties. It can also help in stopping minor bleeding.

4. **Coconut Oil (Mafuta ya Nazi)**:
   Coconut oil is used to soothe minor burns and keep the skin moisturized. It helps reduce the risk of scarring and promotes skin regeneration. It can also be applied to minor cuts to keep the area moist and protect it from bacteria.

5. **Guava Leaves (Majani ya Mpera)**:
   Boiled **guava leaves** are used in some Tanzanian regions to clean wounds. The leaves have antiseptic properties that help prevent infections when applied to cuts. Guava leaves can also be used to treat minor burns.

6. **Papaya (Papai)**:
   Papaya pulp can be applied to small burns or cuts to promote healing. Papaya contains enzymes like papain, which help clean wounds and remove dead tissue, speeding up the healing process.

When using these natural remedies, it's important to first clean the wound with clean water to reduce the risk of infection. If the cut or burn does not improve or becomes worse, it's advisable to seek medical attention.

These natural remedies are widely used in Tanzania due to the availability of these plants and items in many households.

2.5 Security

Running a cash-based small business has several risks. It can be vulnerable to theft or robbery since cash is easy to steal and difficult to recover. Keeping track of sales and expenses is also harder, which could lead to mistakes in financial records. Additionally, employees might take advantage of the lack of oversight to steal cash.

Valuable ingredients and equipment used for making snacks are also at risk of theft or damage, which can disrupt business. Finally, relying on cash-only transactions makes it harder for businesses to access loans or credit, as they may lack the necessary financial documentation. To reduce these risks, it's important to securely store cash and goods, maintain good financial records, and explore alternative payment methods like mobile money.

2.5.1 Security of uncooked and processed food items

Keeping raw and processed foods safe is important to prevent food poisoning. Raw foods need proper storage and handling. Processed foods like snacks and ready-to-eat meals must be stored clean and dry. Good food safety practices, like regular checks and employee training, can help keep food safe and healthy.

2.5.2 Lockable premises

Keeping your business safe is important. Keep expensive products and equipment safe by storing them securely. Use locked cabinets or a safe to protect valuable items. Make sure your business has a lockable door and gate to prevent intruders from accessing it.

2.5.3 Cash Security

A small business which is cash-based needs a cash-handling system. Usually, the employees handle cash and payments from clients and provide change. The cash is kept on their person, in a purse, bag or wallet. Use the money immediately to buy

further raw materials and business consumables, or deposit it into a bank account immediately.

Use of money apps:
Money apps like **M-Pesa**, **Lipa Namba**, **Tigo Pesa**, and **Airtel Money** offer a safer way to handle transactions compared to cash. Customers can send payments directly to your mobile wallet, which reduces the risk of carrying large amounts of cash. However, it's important to note that these platforms have transaction charges that can lower your profits. To avoid this, always factor in these costs when setting prices, ensuring your profit margin remains secure.

2.6 Waste management

2.6.1 Types of waste

Sort your kitchen waste into three categories:

- **General** kitchen waste (e.g. food packaging, plastic wrap, disposable utensils) - throw away in the trash can
- **Oil bottles** - recycle and reuse as water storage bottles or containers for other household items
- **Organic waste** (e.g. potato peels, fruit and vegetable scraps, coffee grounds) - use as:
    - Compost to fertilise your garden or houseplants
    - Animal feed for pets or wildlife (e.g. bird feeders)

2.6.2 Disposal of waste

Proper waste disposal is important for keeping our environment clean and healthy. If not done correctly, it can harm our planet and our well-being.

Cooking oil:

Use oil once for one batch of product; much of it will be used up during the production process, with only about 20% remaining. Example: only about 1 litre will be left over from 5 litres of oil used for one batch of products. Simply filter the oil through a clean cloth then use for domestic consumption for family cooking.

Do not dispose used cooking oil into the environment, as it can:
- Contaminate water.
- Clog drains and pipes, causing plumbing issues

Used cooking oil can also be made into soap.

Waste in Rural Areas:

Burn waste in a well-ventilated area, in a designated burn barrel or incinerator. The waste must be burnt at a location far from buildings, flammable materials, and power lines.

Check local regulations before burning, as some areas may have specific guidelines or restrictions

Waste in Urban Areas:

Bag the waste for municipal collection and place the bag at the curb or designated collection area. Check with your local government for:

- Designated collection programs or facilities
- Special collection events for hazardous waste
- Guidelines for preparing and disposing of used cooking oil

3 Module 3: Crisps production

3.1 Types of Crisps

While potato crisps are a favourite, other ingredients like sweet potatoes, bananas, breadfruit, and cassava are also used to make tasty crisps. Each type offers a unique flavour and texture.

Characteristics of Crisps

The different ingredients from which crisps are made result in products with slightly different characteristics and elements.

Type	Description	Advantages	Disadvantages
Irish potatoes	• Most popular crisps on the market • Need specific starchy varieties for good products: Obama, Tigo, Saggita, Kidinya • Flavoured with salt • Conversion rate: 3.5kg raw = 1kg crisps	• Potatoes available all year round • Starchy potatoes have a long shelf life • May offer a variety of flavours • Highest crisp demand in TZN • Shelf-life of processed chips (3 months)	• Potato quality may affect the yield of crisps – internal bruises and damage
Sweet potatoes	• Not flavoured • Best varieties: • Conversion rate: 4kg raw = 1.2kg crisps	• High fibre, vitamins and minerals • Shelf-life of processed chips (6 months)	• The best varieties are seasonal
OFSP	• High nutritional value: Vitamin A (precursor; carotene) from orange colour; high fibre • Varieties: Kabode, Jewel, Ejumla • Government is promoting OFSP for nutritional properties • Conversion rate: 4kg raw = 1.2kg crisps	• High demand; considered healthier due to Vitamin A (precursor/carotene) content	• Seasonal unless grown where there is irrigation • Low public awareness of OFSP • More expensive than normal sweet potatoes • Not common so not widely available yet

Type	Description	Advantages	Disadvantages
Bananas	• May be sweet or not • Use different types of bananas – some higher sugar content • Use ripe, semi-ripe or green bananas for different flavours • Conversion rate: 3.25kgs of bananas are required to produce 1 kg of banana chips	• Easy and simple production process • Growing market demand • Raw materials (bananas) are widely available • Long shelf-life of processed chips (6 months)	• Competition for bananas for domestic consumption, for hotels, bakeries, etc. • Weather conditions may affect availability at times • Transport costs higher in rainy season
Cassava	• Used during Ramadan – high demand = high price (for Iftar) • Crisps have a similar texture to Irish potato chips • High demand for cassava from export markets for industrial use of cassava starch • 4kg raw cassava = 1.2kg crisps	• Profitable: one long tuber produces a large quantity of chips	• Seasonal • Raw materials price fluctuates due to season • Hard product; blunts cutting equipment quickly • The final product can be very hard and crunchy • Some tubers can have a bitter flavour – with poor flavour of crisps

3.2 Equipment and utensils

The equipment for making crisps is quite simple. Equipment needed is for washing, peeling, slicing and frying, and can be bought locally. Packaging is also available in local shops.

General equipment:

- Vegetable washing equipment: basin, bucket
- Peeler
- Knives (banana peeling)
- Slicer/mandolin
- Heat source: charcoal or gas stove
- Karai (frying pan/wok)
- Spider spoon
- Filter for oil
- Funnel
- Drainage after cooking: (uncoloured)
- Scale for portioning into packages
- Bag sealer
- Packets
- Labels



1 Peeler



2 Mandoline





***3** Bag sealer*

3.3 Raw Materials

The raw materials used for making crisps are oil, the vegetable item to be fried, and seasoning.

- **Cooking oil in Tanzania:**

The type of cooking oil used varies by region. In some areas, especially coastal regions, Korie oil (Palm oil) is commonly used because of its availability and strong flavour. However, sunflower oil is often considered a better option because it is lighter, has a more neutral taste, and is generally healthier due to its lower saturated fat content. Sunflower oil is also widely produced in regions like Dodoma and Singida, making it a popular and accessible choice for many Tanzanian households.

- **Vegetable products**

Vegetable	Quality points
Irish potatoes	Firm, not sprouting, not green, no bad spots, good size
Sweet potatoes/OFSP	Firm, not sprouting, no bad spots, good size. Orange sweet potatoes have more moisture and are very sweet; the yellow colour contains vitamins which are good for eyesight and immunity. White sweet potatoes are dryer, firmer when cooked, mild in flavour, and slightly nutty.
Bananas	Types of bananas: mzuzu. Unripe; firm, colour: light yellow or green; not bruised or blemished
Cassava	Uniform, long shaped tubers

- **Spices in crispy snacks**

Salt: Salt is an essential spice in making crispy snacks. It enhances the flavour of the snacks and balances the taste of the other ingredients. Salt is often sprinkled on fried snacks like **crisps** and **fried cassava** to make them more savoury and enjoyable.

Chilli powder: Chilli powder adds heat and spiciness to crispy snacks, giving them a bold, flavourful kick. In many regions of Tanzania, chilli powder is added to crispy snacks like **bananas** and **peanuts**. It's a popular choice for people who enjoy a little heat in their snacks.

These spices can be adjusted according to taste preferences, making the snacks either mild or spicy depending on customer demand.

3.4 Processing

The basic process for making crisps of any type is the same. This process is to wash/peel, slice, fry, drain, and package. Some additional steps may be needed for different raw products – for example, Irish potato slices must be washed to remove excess starch before frying.
The process to make each type of crisp is presented below.

Step	Irish potatoes	Sweet & OFSP	Bananas	Cassava
1	Wash	Wash	Peel	Wash
2	Peel	Peel	Slice	Peel
3	Slice	Slice	Fry	Slice
4	Wash slices in clean water	Wash slices in clean water	Drain	Soak slices in water to remove excess starch
5	Soak slices in salt water	Drain excess water		Drain excess water
6	Drain excess water	Fry		Fry
7	Fry	Drain oil		Drain oil
8	Drain oil	Sprinkle with salt (optional)		Sprinkle with salt (optional)

Notes: flavourings

- Soaking Irish potato slices in salt water before frying results in more even frying/browning, and a better flavour.
- Flavouring such as blended raw habanero chillies or garlic may be added to raw potato slices before cooking. This adds consistent flavour.
- Some flavourings such as salt, or chilli powder (possibly ground cinnamon) must be dusted onto hot crisps for better adherence.

Health considerations in Crisp production

1. **Limit the use of salt**:

Excess salt can lead to health issues like high blood pressure and heart disease. When making crispy snacks, it is important to use minimal salt to keep the product healthier. Offering low-sodium options can also appeal to health-conscious consumers while still delivering flavour.

2. **Drain products well to reduce fat (calorie) content**:

After frying crispy snacks, ensuring that they are well-drained helps reduce the amount of oil absorbed, lowering the fat and calorie content of the final product. Use techniques like placing the snacks on paper towels or draining them in baskets to remove excess oil. This not only makes the snacks healthier but also gives them a lighter, crispier texture.

3.5 Packaging and labelling

3.5.1 Types of Packaging

Packaging is important for snack foods as it protects the product and helps market the brand. There are many types of packaging to choose from, each with its benefits.

Plastic bags/packets
- Standard packaging for snacks
- Available in various sizes (single serving, sharing, or family packs)
- Can be sealed with a twist tie, staple, or heat seal

Cellophane:
- Great for showcasing flavoured snacks
- Transparent material highlights the product's appearance
- Often used for wrapping individual servings or small bundles

Zip-Seal Bags:
- Perfect for larger packs or sharing sizes
- Reusable and resealable, keeping crisps fresh
- Convenient for on-the-go snacking

3.5.2 Selection Criteria

Select packaging that meets your needs, budget, and brand goals while ensuring your snacks remain fresh and appealing to customers.

Budget:
- Consider the cost of packaging materials and labour.
- Balance cost with quality and durability needs.
- Set a budget and explore options within it.

Availability in Local Areas:
- Consider packaging suppliers with a local presence or distribution.
- Ensure timely delivery and minimal lead times.
- Check for availability of packaging materials in local markets.

3.5.3 Sources of Packaging

You can buy packaging from:

1. **Local Shops:** Local shops and markets offer a range of packaging materials, like plastic bags, cellophane, and zip-seal bags.
2. **Snack material suppliers:** Companies specialising in snack packaging offer a variety of materials, often in bulk.

3.5.4 Labelling

Apply sticker labels to bags at different stages depending on the type of bag:

- Heat-sealed bags: apply labels after sealing
- Zip-sealed bags: apply labels before filling

Add batch-specific information on the label

- **Production date**: the date the product was packaged
- **Expiry date**: the date the product should be consumed by
- **Batch number**: unique number for the production batch date

Accurate labelling ensures:

- Traceability of products: in case of any problems, the producer can trace the batch number and where that batch was distributed and sold
- Clear product information for consumers: labels provide important details like ingredients, storage instructions, and allergens, helping consumers make informed choices.

(Refer to section 7.8 for more guidelines on labelling as presented in the product marketing topic.)

3.5.5 Incorrect Packaging Practices

Packaging Don'ts: Avoiding these mistakes keeps products fresh and safe:

1. **Blow into packets to inflate them**: Blowing air into packets to inflate them can introduce moisture and contaminants from your breath, which can lead to spoilage, mould growth, and reduced product shelf life.

2. **Touch the product with bare hands**: Handling products with bare hands can transfer germs and bacteria onto the food, contaminating it and risking food safety. Always use gloves or clean utensils when handling products.

3. **Use dirty or unclean packaging materials**: Using packaging that is not clean can introduce contaminants and spoil the product. Ensure all packaging materials are sterilised or cleaned before use to maintain product safety and quality.

4. **Not sealing packets properly**: Failing to seal packets properly can allow air, moisture, and pests to enter, reducing the product's shelf life and affecting freshness. Always ensure the packets are tightly sealed to keep the product safe.

5. **Over- or under-filling packets**: Overfilling can cause packaging to burst or break while under-filling can lead to poor presentation and customer

dissatisfaction. Fill the packets to the recommended level to ensure the product looks good and remains intact.

6. **Label packets incorrectly**: Incorrect or missing labels can confuse customers and even legal issues for the seller. Ensure that packets are accurately labelled, including information on ingredients, expiry dates, and storage instructions to maintain customer trust and comply with regulations.

By avoiding these common packaging mistakes, products can stay fresh and safe, ensuring better quality and customer satisfaction.

3.5.6 Process of Packaging

Packaging Process:

1. **Hygiene:** Always handle packets with gloves to maintain hygiene and prevent contamination of the food. This is important for keeping the product safe for consumers and ensuring cleanliness throughout the packaging process.

2. **Product Insertion:** Gently place the products into the packets to avoid damaging them. For fragile items like crisps or tambi, it's important to avoid crushing or breaking them during packaging. Handle the products carefully to retain their quality and presentation.

3. **Quantity Control:** Use a scale to weigh each packet to ensure that the correct amount of product is being placed in each packet. Adjust the contents if needed before sealing to maintain consistent portion sizes, which is important for both customer satisfaction and legal requirements.

4. **Sealing:** Properly seal the packets using a bag sealer or another heat source like a hot metal tool (such as a pot with coals) to ensure a tight, secure closure. This helps prevent air and moisture from entering the packets, preserving freshness and extending the product's shelf life.

By following these steps, small home bakers can ensure that their packaging process maintains hygiene, product quality, and consistency, leading to better customer satisfaction and product safety.

3.6 Storage and Distribution

Storage affects shelf life: How you store your snacks can impact how long they stay fresh. Make sure to store them in a way that maintains their quality. Store your snacks in a:

- Cool place (room temperature or below)
- Dark place (away from direct sunlight)

Transport and distribution guidelines:

- Snacks are fragile, so handle with care.
- Pack snacks into a sturdy box to protect the packets.
- Pack packets head to tail to prevent movement and damage.
- Avoid stacking heavy objects on top of the boxes.
- Keep the boxes away from direct sunlight and moisture during transport.

By following these storage and transportation tips, you'll help keep your crispy snacks fresh and in good condition.

3.7 Costing

Start-up costs

Start-up costs are the initial expenses needed to launch a new business. The main start-up costs are:

- **Equipment**: utensils, general and specialised equipment, cooking equipment
- **Consumables:** all the materials and ingredients needed to make ***the first batch*** of the product including packaging and labels
- **Other Costs:** cleaning supplies and utility costs (water, fuel, etc.).

To create a startup budget, make a list of all the equipment and consumables along with how much each item will cost; include other costs as well like business registration fees, utilities like water and charcoal, transport costs, marketing materials, etc. Add up all equipment and consumable prices to calculate total startup costs.

Example of Startup costs:

Item	Unit	Qty	Cost/Unit	Total
Equipment				
Charcoal stove (Jiko)		1	TZS 150,000	TZS 150,000
Mixing bowls		4	TZS 15,000	TZS 60,000
Utensils (spoons, etc.)		2	TZS 20,000	TZS 40,000
Bag sealer		1	TZS 50,000	TZS 50,000
			Total Equipment	**TZS 300,000**
Consumables				

Item	Unit	Qty	Cost/Unit	Total
Cooking oil	5 litres	2	TZS 25,000	TZS 50,000
Potatoes (crisps)	10 kg	2	TZS 10,000	TZS 10,000
Salt and Spices	500 g	2	TZS 5,000	TZS 10,000
			Total Consumables	**TZS 80,000**
Other costs				
Business registration				TZS 50,000
Utilities (water, charcoal/fuel)				TZS 25,000
Marketing Materials (flyers, signage, etc.)				TZS 50,000
			Total Other costs	**TZS 125,000**
Grand Total				**TZS 505,000**

Product costing

Follow the same principle as above to cost each batch of product as the ingredient costs may fluctuate. For example, banana or potato prices may be different at different times of the year depending on seasons.

Costing would therefore look like this:

Consumables				
Cooking oil	5 litres	2	TZS 25,000	TZS 35,000
Potatoes (crisps)	10 kg	2	TZS 10,000	TZS 10,000
Salt and Spices	500 g	2	TZS 5,000	TZS 10,000
			Total Consumables	**TZS 55,000**
Other costs				

Consumables				
Cooking fuel: charcoal/gas				TZS 25,000
Transport to market (bus)				TZS 20,000
			Total Other costs	**TZS 45,000**
Grand Total				**TZS 100,000**

The cost of the batch can be divided by the number of packets to get the unit cost per packet. For example, if 50 packets are produced, they cost TZS 2000 each. The selling price can then be calculated, e.g. TZS 3,500 per packet.

4 Module 4: Tambi Production

4.1 Introduction

Tambi is a crispy snack made from dough that is pressed through a mould and fried, commonly found in East African countries, including Tanzania. The variations in tambi typically come from the type of flour used and the flavours added to the dough.

Differences in the flour used:

- **Lentil flour:** This is the most used flour for making tambi. Lentil flour gives tambi its distinctive taste and crispy texture.
- **Wheat flour:** Some variations of tambi use wheat flour instead of lentil flour, depending on what is available and affordable. Wheat flour results in a slightly different texture and flavour.

Different flavours in the paste/dough:

- **Cumin:** Adds a warm, earthy flavour that is popular in savoury snacks.
- **Masala:** A blend of spices, usually including coriander, cumin, and turmeric, which gives the tambi a rich, spicy flavour.
- **Other spices:** Some recipes include chilli powder or turmeric for added heat and colour

4.2 Equipment and utensils

- Basin for mixing paste
- Measuring tools for ingredients: scale; measuring cups/spoons
- Mixing spoon
- Tambi press (extruder) (specialised shops)
- Heat source: charcoal or gas stove
- Karai (frying pan/wok)
- Spider spoon
- Filter for oil
- Funnel
- Drainage after cooking:
- Scale for portioning into packages
- Bag sealer
- Packets
- Labels





4.3 Raw materials

The ingredients for making tambi are straightforward and easily available.

- Flour: lentil or wheat
- Water
- Spices: salt, black pepper, other as desired e.g. masala, ginger, cumin, cardamom, (innovation/optional baking powder)
- Oil
- Sugar
- Baking powder
- Redskin ground nuts (optional)

4.4 Processing

Making tambi is a simple process of mixing lentil flour with seasoning and water to form a paste, then filling the tambi press with the paste and turning it into hot oil to fry quickly. Once fried, it is drained, cooled and packed for sale.

The steps are:

- Prepare the stove and heat oil.
- Follow the recipe step by step

Tambi Recipe

Ingredients

1. 1kg lentil flour
2. 2,5ml baking powder
3. 15ml sugar
4. 5 ml salt
5. A bit of salt
6. **Flavouring**: optional
   - 5ml (1 tsp) hot masala powder
   - 5ml (1 tsp) 1 tsp black pepper powder
   - Manjano masala
   - Dania Nzima powder
7. Water
8. Cooking oil
9. Cardamon powder

Method

1. Mix all the dry ingredients (except cooking oil).
2. Slowly add water to create a soft dough.
3. Fill the tambi press with the dough.
4. Press the tambi into hot oil and fry until crispy and golden brown.
5. Drain the fried tambi on (basket or tray) and allow it to cool.
6. Package the tambi into equal portions in airtight bags.
7. Seal and label the packets for sale.

5 Module 5: Groundnut Production

5.1 Introduction

Groundnuts/peanuts are a delicious and addictive snack made from roasted or fried peanuts. There are two types of groundnut snacks:

- **Karanga za kawaida: roasted groundnuts:** This snack is made by roasting groundnuts in their shells or without shells in an oven or on a stovetop. This process brings out the natural flavour and aroma of the groundnuts, giving them a delicious nutty taste and crunchy texture.
- **Karanga za mayai: egg-coated and fried groundnuts:** This tasty treat is made by coating groundnuts (peanuts) in a mixture of egg, flour, and spices, and then deep-frying them to a crispy golden brown.

5.2 Equipment and utensils

- Basin for mixing paste
- Measuring tools for ingredients: scale; measuring cups/spoons
- Wooden mixing spoon
- Heat source: charcoal or gas stove
- Karai (frying pan/wok)
- Spider spoon
- Filter for oil
- Funnel
- Drainage after cooking:
- Scale for portioning into packages
- Bag sealer
- Packets
- Labels



4 Bag Sealer

5.3 Raw Materials

The ingredients for making groundnut snacks are the following:

- Groundnuts: raw groundnuts from the market (white are best)
- Eggs
- Flavourings: salt, vanilla, sugar
- Wheat flour

5.4 Processing

The process for making **Karanga za mayai** and **Karanga za kawaida** is as follows:

1. Sort peanuts for stones and bad nuts
2. Follow the recipes step by step

Recipe: Karanga za mayai

Ingredients:

- 1kg raw groundnuts.
- 500g flour
- 300g sugar
- 5ml vanilla essence
- 5ml salt
- 2 eggs

Flavouring: optional:

  - 1 ½ tablespoons powdered pepper like cayenne or chilli powder add more or less for preference
  - 1 1/2 teaspoon grounded black pepper
  - 3/4 teaspoon nutmeg
- Oil for deep frying

Method:

1. Fill a medium saucepan with enough water to boil the groundnuts. Place on high heat and bring to a boil. Once the water starts boiling, gently put in the groundnuts, cover and boil for three to five minutes. Turn off the heat and use a colander to strain the groundnuts. Spread the groundnuts over a big tray or baking pan so there is enough room for each groundnut to dry.
2. Whisk together the flour, sugar, flavourings and salt in a bowl.
3. Beat the eggs together and set aside.
4. On the same tray the groundnuts are on, pour the beaten eggs over the groundnuts making sure every groundnut is well coated. Pour half the flour onto the egg-coated groundnuts and using your two hands, mix everything carefully. It will look messy and some of the groundnuts might have stuck together.
5. Spread the groundnuts on the tray to separate the ones stuck together and pour the remaining flour on to coat. Let the coated groundnuts rest for eight to ten minutes.
6. Heat a deep fryer with oil on medium heat. When the oil is hot, put in some of the groundnuts. DO NOT CROWD the fryer. Continuously stir till the groundnuts are brown. Remove from the oil and place in a colander lined

with paper tissues. The groundnuts get darker and crunchy when cooling so do not keep them in the fryer for long.
7. Package into airtight packets; seal, and label packets ready for sale.

Recipe: Karanga za Kawaida (Simple Roasted Groundnuts)

Ingredients:

- 500g raw **groundnuts** (preferably from the market)
- 1 tsp salt (optional)
- Water (for soaking)

Method

1. Wash the raw groundnuts: Rinse the groundnuts in clean water to remove any dirt or debris.
2. Soak: In a bowl, dissolve the salt in a little water and soak the groundnuts for 10 minutes (optional, for salted groundnuts).
3. Roasting: Heat a dry pan on medium heat. Add the soaked or plain raw groundnuts to the pan and start roasting them. Stir continuously to ensure even roasting and prevent burning.
4. Cook until golden brown: Roast the groundnuts for about 10-15 minutes, or until they turn golden brown and have a crunchy texture. You will know they are done when the skin starts to peel easily.
5. Cool: Remove the groundnuts from the pan and allow them to cool completely before serving.
6. Serve or package: Once cooled, they are ready to eat or package for sale.

6 Module 6: Other Crispy Snacks

6.1 Introduction

Other simple, inexpensive crispy snacks like visheti, cheuro, and popcorn is perfect for any occasion. These snacks are made from just a few simple ingredients.

- **Visheti**

Visheti is a crispy, sweet snack. It is made from the egg-flour residue of karanga za mayai (groundnuts coated in a batter made from eggs and flour). After preparing karanga za mayai, any leftover batter is repurposed to make visheti, which are deep-fried to create a crunchy, slightly sweet snack.

- **Cheuro**

Cheuro is a crunchy, flavourful snack made from a combination of ingredients, including tambi, Irish potato crisps, groundnuts (peanuts), curry leaves, and spices.

- **Popcorn**

Popcorn is a crunchy, flavourful snack that is made from popcorn kernels. Popcorn can be served plain, flavoured (salt, butter, other spice mixes) and it can be coloured to make it look more appealing.



6.2 Equipment and utensils

Visheti

- Mixing bowl
- Measuring cups and spoons
- Wooden mixing spoon
- Rolling pin
- Heat source: charcoal or gas stove
- Sharp knife
- Frying pan
- Spider spoon (Jalo)
- Filter for oil
- Drainage after cooking (ungo)
- Tray or Plate: for cooling the visheti after frying
- Bag sealer
- Packets
- Labels

Cheuro

- Mixing bowl
- Wooden mixing spoon
- Bag sealer
- Packets
- Labels

Popcorn

- Heat source: charcoal or gas stove
- Big pot with lid
- Bag sealer
- Packets
- Labels

6.3 Raw Materials

Snack production starts by selecting raw materials such as oil, flavourings (salt, sugar, spices, etc.), and flour. Ensure that all ingredients are readily available at the beginning of the production process.

Materials for all additional crispy snacks

Oil

Oil is the key cooking medium used for frying snacks like **visheti**, **cheuro**, and **popcorn**. It helps give these snacks their crispy texture. Common cooking oils are sunflower and palm oil, or a blend of these oils.

Flavourings

Flavourings add variety and enhance the taste of each snack:

- **Visheti:** Common flavourings include sugar, butter, nutmeg, and cardamom to give a sweet, spiced taste.
- **Cheuro:** Savoury flavourings like chilli powder, parsley or other mixed herbs, garlic powder, and salt are often added to the mix.
- **Popcorn:** Simple flavourings like salt, sugar, or even cocoa powder for a sweet twist can be used.

Colouring:

Sometimes **food colouring** is added to snacks like popcorn to make them visually appealing, especially for children or festive events.

Specific ingredients

Each snack has the main/base ingredient. For example,

- **Visheti**: wheat flour, water, and sometimes butter to make the dough.

- **Cheuro**: Ready-made tambi, potato crisps, and groundnuts (peanuts) form the base of the cheuro mix. These ingredients are often fried and then mixed with spices and flavourings.
- **Popcorn**: Popcorn kernels; are best bought from Indian shops. Colouring may be added for interest.

6.4 Processing

6.4.1 Visheti

Visheti Recipe

Ingredients:
- Karanga za mayai (egg-flour residue)
- 500g wheat flour
- 1 cup (250ml) sugar
- 1 cup (250ml) water
- Cooking oil

Method:
1. Combine the karanga za mayai egg flour residue with 500g of wheat flour to form a dough that weighs about 1kg.
2. Roll the dough into a 1cm thick sheet.
3. Slice the dough into strips and then cut across the strips to form 1cm squares.
4. Heat oil in a pan and fry the squares until they are golden brown and crispy.
5. In a separate pot, combine 1 cup sugar and 1 cup water, then bring it to a slow boil until the mixture thickens and turns golden brown.
6. Add the fried dough pieces into the syrup and stir them around until they are well coated.
7. Keep cooking and gently stirring until the moisture evaporates and the sugar coating turns a little white on the outside.
8. Transfer the coated visheti onto a tray to cool completely.

Optional Variations:
- **Plain Visheti**: Follow the standard recipe steps but omit any additional spices.
- **Flavoured Visheti**: For a unique twist, mix your dry ingredients with additional spices (like cinnamon or cardamom) to add a different flavour to the dough before frying.

Once cooled, the visheti can be packaged and stored for later use.

6.4.2 Cheuro



Cheuro can be made by adding additional snack ingredients such as fried rice and yellow lentils, groundnuts and crisps to the basic tambi noodles.

Cheuro recipe

Ingredients

- 500g tambi
- 250g roasted groundnuts (peanuts)
- 2 packets of Irish potato chips
- 5ml (1 tsp) yellow dill (Bizari Manjano)
- ¼ cup sugar (62.5ml)
- Small amount of salt (to taste)
- 10ml (2 tsp) lemon powder
- 5ml (1 tsp) black pepper powder
- 2 bunches of curry leaves
- 30ml (2 Tbsp) cooking oil

Method:

1. In a pan, heat 2 tablespoons of oil and fry the curry leaves and yellow dill until fragrant.
2. In a large bowl, combine the fried curry leaves and yellow dill, roasted groundnuts, Irish potato chips, and fried Vimchele.
3. Mix in sugar, lemon powder, salt, chilli powder, and black pepper. Toss everything together until well combined.

4. Taste the mixture and adjust seasoning or add more chilli powder if you want a spicier version, or add more curry leaves for a herby flavour.
5. Once everything is mixed well, transfer the cheuro into airtight containers or bags.
6. Keep the packed cheuro in a cool, dry place to maintain crunchiness.

Variations:

7. **Spicy Cheuro**: Add extra chilli powder or a dash of hot sauce for a more intense kick.
8. **Herby Cheuro**: Increase the quantity of curry leaves or add other herbs like parsley or cilantro for extra aroma.

Nutty Cheuro: Add more groundnuts or try using almonds or cashews for a richer, nuttier flavour.

This cheuro recipe offers a crunchy and flavourful snack that can be adjusted according to taste preferences. Whether you prefer it spicier, nuttier, or herby, it is a versatile and easy-to-make treat.

6.4.3 Popcorn

Popcorn Recipe – Three Styles: Plain Salted, Flavoured (Chocolate), and Coloured

Ingredients:

- **Plain Salted**:
  - 1/2 cup popcorn kernels
  - 2 tablespoons oil
  - Salt (to taste)
- **Flavoured (Chocolate or cinnamon)**:
  - 1/2 cup popcorn kernels
  - 2 tablespoons oil
  - 2 tablespoons cocoa powder or cinnamon powder
  - 2 tablespoons sugar
  - 2 tablespoons water
- **Coloured (optional)**:
  - 1/2 cup popcorn kernels
  - 2 tablespoons oil
  - 2 tablespoons food colouring (desired colour)
  - 2 tablespoons sugar
  - 2 tablespoons water

Method:

- **Plain Salted Popcorn:**
  1. **Prepare the stove**: Heat the stove on medium heat.
  2. **Add oil and kernels**: Pour the oil into a pot and add the popcorn kernels.

3. **Pop the popcorn**: Cover the pot and allow the popcorn to pop, shaking the pot occasionally to prevent burning. Once the popping slows, remove from heat.
4. **Cool and season**: Transfer the popcorn into a heatproof container and let it cool slightly. Add salt to taste.
5. **Package**: Once cooled, package for storage or serve immediately.

- **Flavoured (Chocolate or Cinnamon) Popcorn:**
  1. **Prepare the stove**: Heat the stove on medium heat.
  2. **Prepare the chocolate paste**: In a small bowl, mix the cocoa powder, sugar, and water to form a paste.
  3. **Cook the chocolate paste**: Pour the chocolate paste into a pot with oil and mix it together with a wooden spoon.
  4. **Add kernels**: Add the popcorn kernels to the pot and coat them well with the chocolate mixture.
  5. **Pop the popcorn**: Close the pot and allow the popcorn to pop, shaking the pot occasionally. Once the popping slows, remove from heat.
  6. **Cool and package**: Transfer to a heatproof container and let it cool. Package for storage or serve immediately.

- **Coloured Popcorn (optional):**
  1. **Prepare the stove**: Heat the stove on medium heat.
  2. **Prepare the colour paste**: In a small bowl, mix the food colouring, sugar, and water to form a paste.
  3. **Cook the colour paste**: Pour the colour paste into a pot with oil and mix it together with a wooden spoon.
  4. **Add kernels**: Add the popcorn kernels to the pot and coat them well with the colour mixture.
  5. **Pop the popcorn**: Close the pot and allow the popcorn to pop, shaking the pot occasionally. Once the popping slows, remove from heat.
  6. **Cool and package**: Transfer to a heatproof container and let it cool. Package for storage or serve immediately.

7 Module 7: Production planning and marketing

7.1 Market demand

Check local demand before starting your crispy snack business. The following steps will help identify and test local demand.

1. **Identify what crispy snack products are available locally:** Visit local stores, markets, and supermarkets to see what crispy snack products are already available. Take note of the types, flavours, and prices of these products.
2. **Look for gaps in the market:** Compare the available products to the ones learned in this course. Identify what gaps there are in the market.
3. **Explore local raw materials:** Research local farmers, markets, or suppliers to see what raw materials can be made into crispy snacks. E.g. groundnuts.
4. **Test the market with samples:** Test the crispy snacks by making samples and giving them to people in the community and then ask for feedback like, “what do they like?” and “what can be better?”.

These steps will help you understand what your local market needs and how to fill that need.

7.2 Target market

When identifying target markets for your crispy snacks, it’s important to consider who would want these snacks and what they can afford. Consider selling to:

- Schools: healthy snacks for students and staff
- Stores: add your snacks to their shelves
- Bus stops: snacks for commuters
- Markets: unique snacks for vendors and people who shop at markets
- Main road and highway junctions

By understanding the specific needs, preferences, and affordability of these different customer groups, you can tailor your product offering and marketing strategy to better suit each target market. This will help you increase sales and reach more customers effectively.

7.3 Sales channels

A sales channel refers to the different ways or places where crispy snacks can be sold. For example, a crispy snack producer can use various sales channels like local markets, shops, street vending, or even mobile money apps for delivery orders. These channels help reach customers in different locations, making it easier to sell snacks. Using multiple sales channels can increase sales and expand the business.

1. **Selling directly to customers from home**:
This method allows you to sell your crispy snacks directly to people who come to your home. It's convenient if you have loyal customers nearby or a strong local reputation. This option may also reduce costs since there's no need for transport or intermediary sellers.

2. **Selling at specific sales points**:
You can set up a stand or arrange to sell your snacks at busy locations like markets, bus stops, or public events. This method helps reach more people who are on the move and looking for snacks. It's an effective option for building a customer base through face-to-face interaction.

3. **Selling through local shops/supermarkets (supply as a stock item)**:
By supplying your snacks to local shops or supermarkets, you expand your reach to a wider audience. This involves regularly delivering your products to the store, where they'll be sold to customers. It requires careful coordination with shop owners and maintaining consistent quality and supply.

4. **Getting others to sell products at certain sales points**:
You can partner with individuals or small vendors to sell your snacks at their sales points. For example, you could work with someone who sells products at markets, bus stops, or roadside stalls. This method increases your sales reach without needing to be physically present at every location.

Each of these options offers unique benefits, and the best choice depends on your available resources, target market, and location. You can also combine several options to maximize your sales and reach more customers.

7.4 Product selection

When choosing the right snack product to produce, it's essential to consider the target market's characteristics, including their **age**, **taste preferences**, and **budget**. Here's a breakdown of possible snack products for different target markets based on these factors:

Schools:
- **Snack choice**: offer healthy, kid-friendly snacks such as **lightly salted or low-sugar popcorn**, or **crispy OFSP or banana chips**.
- **Why**: Children and staff need snacks that are affordable, nutritious, and easy to eat. Avoid overly spicy or heavy snacks that may not appeal to children's simpler tastes.
- **Budget**: Snacks should be low-cost, as children usually have limited spending money.

Stores:

- **Snack choice**: Consider versatile, shelf-stable snacks like **crisps, peanuts**, **flavoured popcorn**, or **cheuro**.
- **Why**: Stores look for snacks that appeal to a wide audience, including adults and families. These snacks are easy to package and store, making them ideal for shelves. Adding unique flavours, such as spicy or sweet variants, can help them stand out.
- **Budget**: Pricing needs to be competitive, but you can offer various packaging sizes to accommodate different budgets (e.g., small single servings vs. larger family packs).

Bus stops:
- **Snack choice**: Focus on grab-and-go snacks like **crisps**, **small bags of flavoured popcorn**, or **groundnut snacks**.
- **Why**: Commuters need snacks that are quick, portable, and mess-free. Keep it simple with small, individual servings that are easy to carry and eat while traveling.
- **Budget**: Offer low-cost single-serving options to attract impulse buyers who are on the move.

Markets:
- **Snack choice**: Consider snacks that are unique and locally inspired, such as crisps, cheuro, or groundnuts or tambi.
- **Why**: Market shoppers often look for fresh, handmade snacks that have a local, authentic flavour. Offering a variety of traditional snacks with unique seasoning (e.g., spicy, herby, or sweet) can attract more customers.
- **Budget**: These snacks should be moderately priced, but the authenticity and homemade aspect can allow for slightly higher prices, depending on the customer base.

Main road and highway junctions:
- **Snack choice**: Snacks like **spiced nuts**, **crisps**, or **tambi** are great for travellers.
- **Why**: Travelers are looking for snacks that are easy to eat on the go, filling, and don't require utensils. Offering spiced or flavoured variants can appeal to adults with more developed tastes.
- **Budget**: Offer snacks in different sizes to cater to varying budgets. Small packages for individual consumption and larger ones for groups or families travelling together.

By selecting the right snack based on the target market's characteristics, you can better match your product to their needs and increase the chances of success in the market.

7.5 Production records

Proper **record-keeping** and **labelling** are essential for food safety and quality control. Keeping track of production dates, expiry dates, and batch numbers ensures that you have a clear record of what was produced, when it was produced, and how long it will remain fresh. This also helps with tracking any issues or recalls, should they arise.

Label Information

1. **Production Date**: The date when the snack was made. This helps consumers know when the product was freshly prepared.

2. **Expiry Date**: Indicates when the product should no longer be consumed, based on the shelf life of the ingredients.

3. **Batch Number**: A unique number assigned to each batch of snacks produced. This helps track the specific batch in case of issues or complaints.

4. **How to Label a Product:**
   - **Production Date**: Clearly marked on the label (e.g., **"Prod. Date: 10/09/2024"**).
   - **Expiry Date**: Listed as the date the product expires (e.g., **"Exp. Date: 10/10/2024"**).
   - **Batch Number**: Displayed clearly (e.g., **"Batch: 0001"**), often located near the production or expiry date.
5. **Sample Record-Keeping Sheet:**

Batch Number	Production Date	Expiry Date	Product	Quantity Produced	Notes
0001	10/09/2024	10/10/2024	Spiced Popcorn	100 packs	N/A
0002	12/09/2024	12/10/2024	Plantain Chips	150 packs	N/A
0003	14/09/2024	14/10/2024	Cheuro	200 packs	Reduced salt in this batch
0004	16/09/2024	16/10/2024	Crispy Peanuts	80 packs	N/A

6. **Steps for Effective Record Keeping:**
   - **Record the batch number** every time a new batch of snacks is produced.

- **Log the production date** on the same day the batch is completed.
- **Determine the expiry date** based on the shelf life of the ingredients used.
- **Track any changes or variations** in the product for that batch (e.g., different seasoning, size, or packaging changes).

By following these steps, small bakers can ensure traceability, maintain product quality, and meet food safety standards.

7.6 Product innovation

Once established, a crisp producer may expand their product range to include new snacks that may appeal to the market. To do this, they would have to keep up with the market – what people like, any new crisps or snacks (type, flavour) that are new and that there may be a growing demand for. To expand the product line, do the following:

- Follow market trends – see what new products are being sold
- Ask customers what they like (both direct customers and retail/shops that sell the product), and about packaging and product presentation.

Product	Innovation
Crisps	• Develop and test new products e.g. OFSP crisps • Adding flavours – blend habanero chilli to a paste; add to raw, sliced potato before frying; garlic can be added the same way
Tambi	• Add different ingredient to make mixes, e.g. nuts and crisps; spices
Groundnuts	• May add colour for differentiation • May add flavours or spices e.g. honey for sweet variation, chilli powder for a spicy variation
Visheti	• Adding cocoa for chocolate flavour
Cheuro	• Using different ingredient mixes and spices/flavourings
Popcorn	• May add flavours or spices e.g. honey for sweet variation, chilli powder for a spicy variation • Experiment with flavours e.g. cocoa and cinnamon

7.7 Marketing tools

To effectively promote your crispy snack business, here are key steps to consider:

1. **Business name and signage**
Choose a **business name** that is easy to remember and reflects your product. Once decided, create a **sign** that can be displayed at your home, shop, or sales point. This helps customers recognize your business.

2. **Contactable telephone number**
Ensure you have a **reliable phone number** where customers can place orders, ask questions, or inquire about delivery options. Display this number clearly on your sign and promotional materials.

3. **Promotion by friends and family**
Ask **friends and family** to spread the word about your snacks in their communities and villages. Word-of-mouth marketing can be powerful, especially in rural areas where personal recommendations matter.

4. **Simple business card (optional)**
Design a **simple business card** that includes your business name, product details, contact number, and any social media handles. You can distribute these cards at sales points or to potential customers.

5. **Simple flyer (optional)**
Create a **flyer** that describes your business and the products you sell. Include prices, contact information, and where to find you. Flyers can be posted at local shops, markets, or bus stops to attract more customers.

6. **Personal selling**
Visit **local shops and businesses** in person to promote your snacks. Approach potential retailers, present your product, and offer samples to gain interest. This direct approach helps build relationships and get your snacks on store shelves.

7. **Social media promotion (where smartphones and data are available)**
Create **social media pages** on platforms like **Facebook**, **Instagram**, and **WhatsApp** to promote your business.
- **Facebook and Instagram**: Share photos of your snacks, customer testimonials, and behind-the-scenes stories. Encourage satisfied customers to tag themselves and share posts.
- **WhatsApp status**: Regularly update your status with new products, special offers, and promotions. Ask your contacts to share your status with their networks to help spread the word further.

By implementing these steps, you can effectively market your crispy snack business and reach a broader customer base. Social media, local promotions, and direct engagement with customers will help build awareness and drive sales.

7.8 Labels

Here are different **types of labels** that can be used for crispy snacks:

Sticker Labels:

- **Description**: Custom-designed stickers printed on adhesive paper, commonly used for product branding. You can get stickers made at a local stationery shop. At first, you'll need to pay a small fee to design and create a logo. After that, you can buy stickers in bulk at a low cost. They usually come on A4 sheets; you'll need to cut them out yourself.
- **Advantages**: Affordable, easy to design, and can be produced in bulk. Can be attached directly to packaging.
- **Where to Get Them**: Stationery shops or local print services.
- **Uses**: Branding, production date, expiry date, and batch number.

Printed Labels:

- **Description**: Labels that are printed directly onto the snack packaging during the manufacturing process.
- **Advantages**: Professional, consistent, and highly durable. No risk of peeling or fading.
- **Where to Get Them**: Packaging suppliers that offer printing services.
- **Uses**: Large scale snack producers may prefer this for professional, permanent labelling.

Handwritten Labels:

- **Description**: Simple labels that can be handwritten, often on paper or adhesive tape.
- **Advantages**: Very cost-effective for small-scale producers or homemade snacks. Requires no special equipment.
- **Where to Get Them**: Easily done using materials available at home or from a stationery shop.
- **Uses**: Temporary labelling for small batches, testing new products, or markets where detailed branding isn't necessary.

What to include on your labels:

- Brand name (your business name)
- Product name (the name of your snack)
- Contact details (your phone number and address)
- Ingredients (what's in your snack)
- Weight (how much your snack weighs)
- Include batch number and expiry (Best Before) date

Labels help customers know what they're buying and who to contact if they have questions or want more snacks.

7.9 Customer service/s and communication

To maintain a successful crispy snack business, it's important to focus on both customer service and product quality. Here are some essential practices for building positive customer relationships and ensuring consistent quality:

Customer Service Practices:

1. **Friendly and helpful; smiling**
Always greet customers with a smile and a positive attitude. This helps create a welcoming atmosphere and encourages repeat business.

2. **Confidence and personality in customer interactions**
Be confident and personable when interacting with customers. Build rapport by engaging in light conversation and being approachable.

3. **Polite language, greeting, and conversation**
Always use polite and respectful language. Simple greetings like "Hello" or "Welcome" can go a long way in making customers feel valued.

4. **Answering the phone properly**
When taking orders or inquiries by phone, answer professionally by stating your business name and helping, for example: “Thank you for calling [Business Name], how can I help you?”

5. **Asking customers for feedback on products and service level**
Encourage customers to share their thoughts on your snacks and customer service. This helps you improve and shows that you care about their opinions.

6. **Acceptance of feedback: both positive and negative**
Be open to feedback, whether it's praise or criticism. Thank customers for their input and use it to improve your product or service where necessary.

7. **Product delivery on request**
Offer delivery services for convenience. Ensure products are delivered promptly and in good condition.