

Fish for Improving Nutrition

Recipe Guideline COOKBOOK

Partnership for Aquaculture Development in Timor-Leste Phase 2

Funded by



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Authors

Mercy Corps and WorldFish.

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Preparation of recipes: East Timor Development Agency

Validation of recipes: Sixty-nine women and men who dedicated their time to testing recipes and sharing their opinions about the content of the cookbook.

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Fish for Improving Nutrition

**Recipe
Guideline**

COOKBOOK



Partnership for Aquaculture Development in Timor-Leste Phase 2

This recipe book has been produced as part of the Partnership for Aquaculture Development in Timor-Leste Phase 2 project (PADTL2). The PADTL2 is implemented by WorldFish in partnership with the Timor-Leste Minister of Agriculture, Livestock, Fisheries, and Forestry and financed by the New Zealand Ministry of Foreign Affairs and Trade along with complementary funding of the United States Agency for International Development. The PADTL2 project aims to scale up production of genetically improved farmed tilapia (GIFT) to support progress for the National Aquaculture Development Strategy (2012–2030). This strategy targets increased farmed fish production of 12,000 tons per year by 2030, leading to a rise in annual fish consumption to 15 kg per person. The project has adopted a holistic approach to expanding its impact, including by engaging in and coordinating efforts with the private sector.

An important aspect of the nutrition activities of the PADTL2 is to develop safe and nutritious fish recipes and guidelines to support and inspire consumers and providers of national food programs to prepare a range of healthy meals. These activities aim to improve the dietary diversity of families with a focus on pregnant women and young children, and to support the incorporation of fish in the meals of public institutions. This recipe book is designed to encourage families to eat more fish and in for fish to be included in meals served in public institutions such as schools and hospitals.

Cookbook development

Mercy Corps, a PADTL2 partner, collaborated with the East Timor Development Agency (ETDA) to design 10 simple yet creative tilapia recipes for this cookbook. The cookbook also features two popular fish recipes: dried fish flakes and fish porridge. The latter is particularly suitable for infants and young children. The Ministry of Health provided technical contributions throughout the cookbook development process, including nutrition, hygiene, and food safety information.

The cookbook was thoroughly tested to validate recipe acceptance. Ten pilot tests were conducted in the municipalities of Bobonaro, Baucau, Ermera and Lautem in March-April 2023 with 69 people, including school administrators and cooks, municipal health staff, private service providers who prepare meals for hospital patients and community members from savings and loans groups. The purpose of these pilot tests was to obtain feedback from the intended end users of the cookbook on the clarity of the fish promotion health messages, language, images and the recipes. The cookbook would not have been possible without these women and men who dedicated their time to testing recipes and sharing their opinions about the content of the cookbook.



This cookbook is part of a social and behavior change (SBC) package developed by Mercy Corps to increase awareness of the benefits of fish and promote fish in more Timorese meals.

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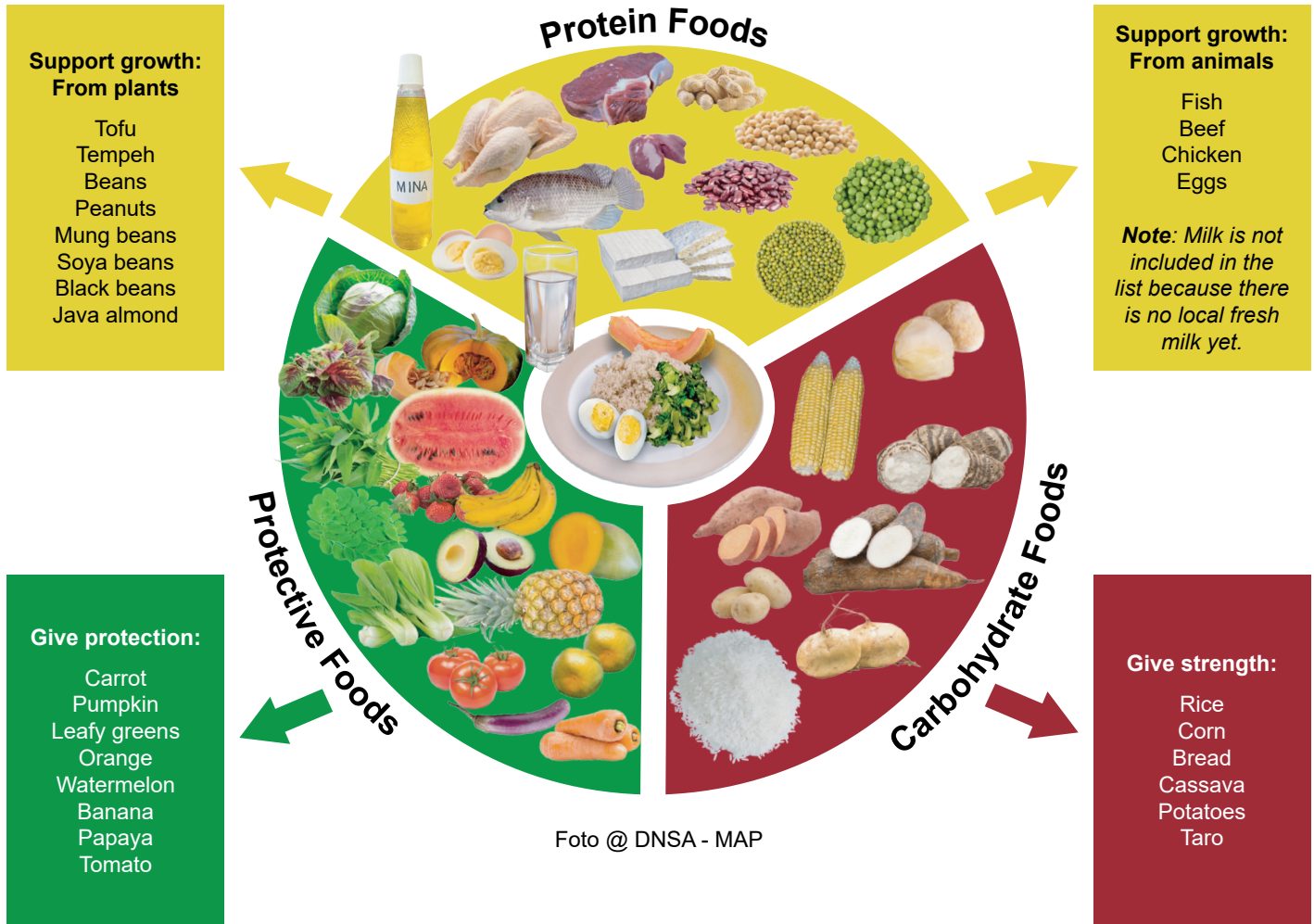
Objective

Eating fish brings many opportunities as fish includes protein as well as many important vitamins and minerals needed for good health and for child development. Purchasing fish locally from fish farmers or fishermen can contribute to the economic growth of communities especially when purchased for the local school feeding program, local restaurants or regional hospitals.

The specific objective of the cookbook is to encourage increased consumption of fish:

- Encourage households to eat fish twice weekly.
- Encourage the inclusion of fish in the School Feeding Program and within hospitals and other public facilities.
- Use of local products (including fish) in the preparation of recipes.
- Promote the importance of fish consumption for infants starting at 6 months and for pregnant women.
- Encourage fishermen and households that have fishponds to eat the fish with their families first before selling the fish.
- Encourage proper sanitation and hygiene for fish storage and recipe preparation.
- Promote the nutritional benefits of fish.

Although this cookbook focuses on farmed tilapia, all fish and seafood and freshwater foods are an important part of the weekly menu because of the many nutrients that fish provide.



The benefits of consuming fish

Three Food Groups

Protein Rich Foods: Important for growth and development (helping people to grow).

Carbohydrate Rich Foods: Provide energy for the body.

Protective Foods: Prevent sickness and support the body to fight off infections and illness.

Fish and other seafoods are part of the Protein rich food group!

Food-Based Dietary Guidelines (FBDG) from MoH recommends consuming fish twice a week and more often for pregnant, breastfeeding women and young children.



The benefits of consuming fish

Importance and benefits of eating Protein Rich Foods

- Consuming protein foods helps to make us strong.
- Supports children's growth and to learn better in school.
- Provides good nutrition for pregnant women so that they can have healthy babies.
- Can protect families from becoming sick.
- It will help you feel full and it tastes delicious.



Protein

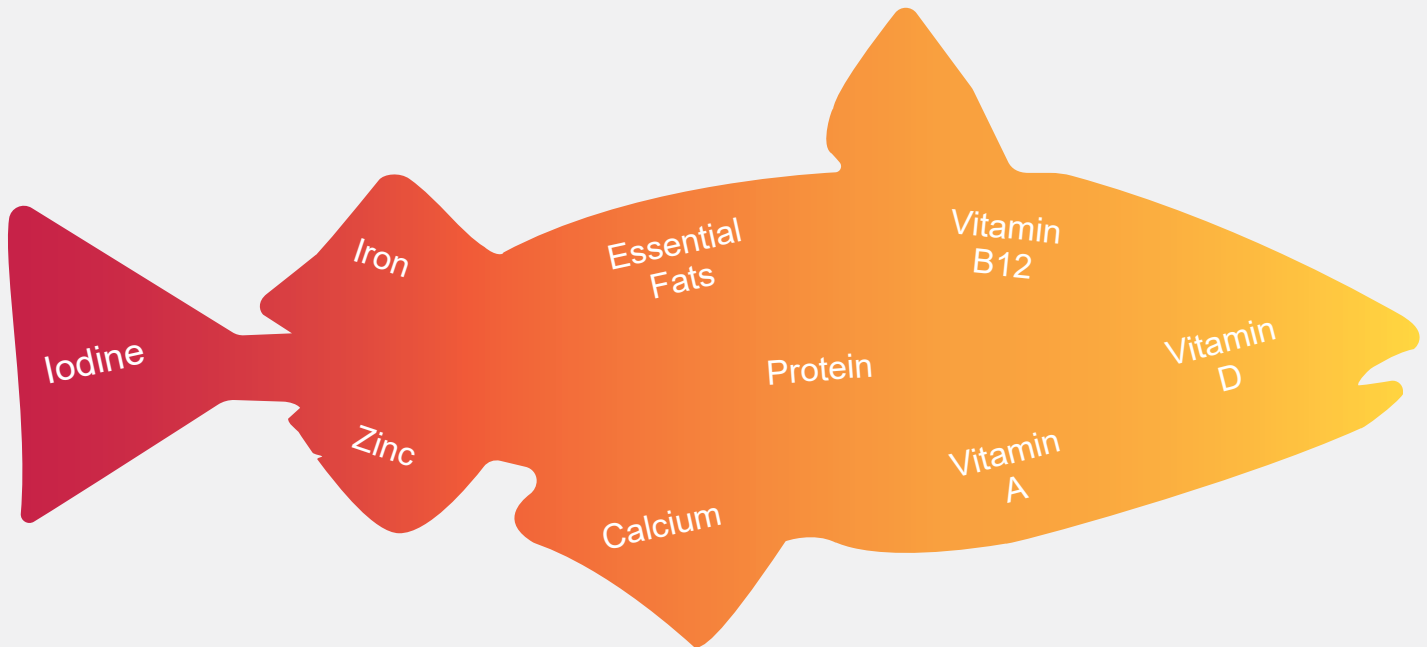
Important for the development of bones, cartilage, muscles, skin and blood.

Essential Fats

Helps prevent pre-eclampsia (swelling of arms and legs during pregnancy), low birth weight and supports cognitive development and better vision in children.

Vitamin B12

Essential for a healthy pregnancy, helps prevent brain and spinal cord birth defects, supports maintenance of healthy muscles and nervous system.



Iodine

Essential for brain development of the fetus and helps prevent stillbirth.

Iron

Essential for brain development in children and increases maternal survival rates.

Vitamin D

Essential for the development of strong, healthy bones, teeth and muscles in children and helps prevent pre-eclampsia during pregnancy, preterm delivery and low birth weight.

Zinc

Crucial for infant survival, to reduce wasting and for treatment to protect against diarrhea.

Calcium

Calcium helps prevent pre-eclampsia and preterm delivery and is essential for strong bones and teeth.

Vitamin A

Essential for childhood survival, prevents blindness, helps fight infections and promotes healthy growth.

Benefits of Fish Consumption

Why Consume Fish?

There are many nutrients found in fish that can help us stay healthy. Some of the important nutrients include:

Protein: Important for the development of bones, cartilage, muscles, skin and blood.

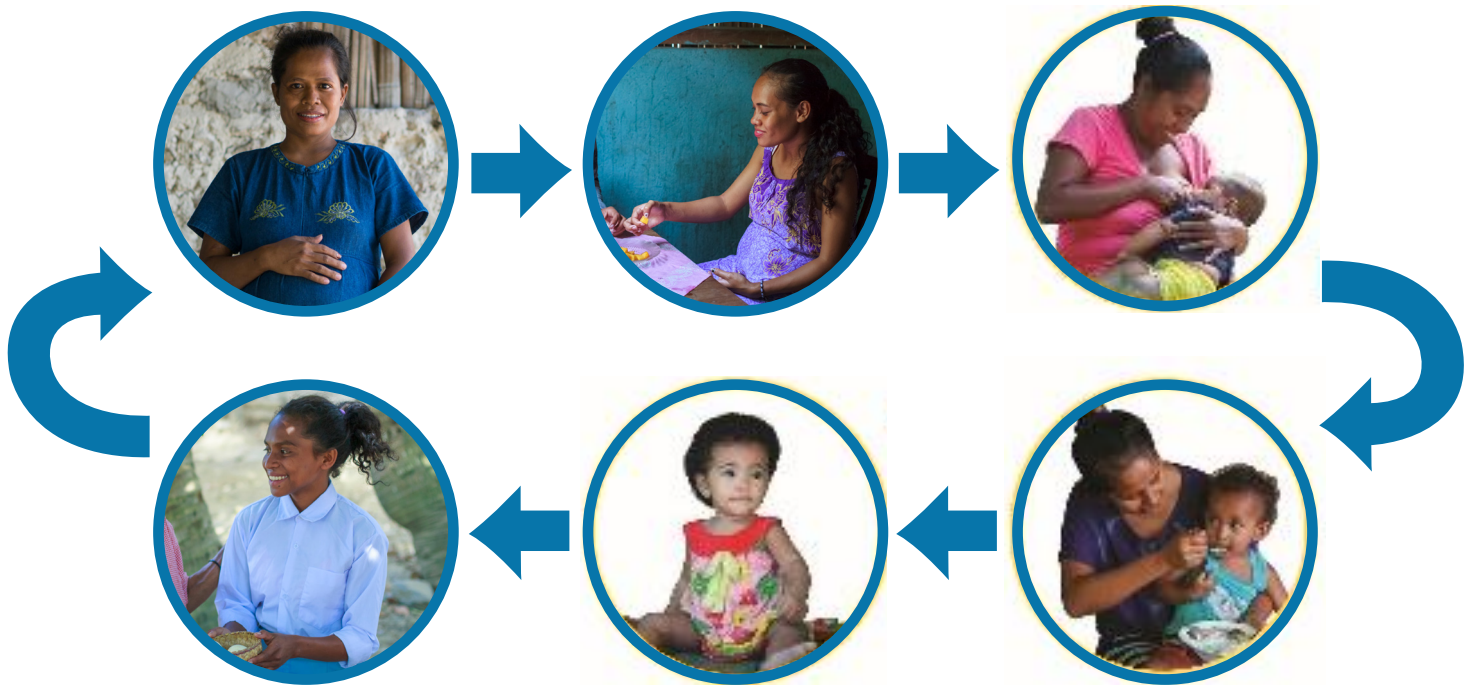
Essential Fats: Helps prevent pre-eclampsia (swelling of arms and legs during pregnancy), low birth weight and supports cognitive development and better vision in children.

Minerals

- **Iodine:** Essential for brain development of the fetus and helps prevent stillbirth.
- **Iron:** Essential for brain development in children and increases maternal survival rates.
- **Calcium:** Calcium helps prevent pre-eclampsia and preterm delivery and is essential for strong bones and teeth.
- **Zinc:** Crucial for infant survival, to reduce wasting and for treatment to protect against diarrhea.

Vitamins

- **Vitamin A:** Essential for childhood survival, prevents blindness, helps fight infections and promotes healthy growth.
- **Vitamin B12:** Essential for a healthy pregnancy, helps prevent brain and spinal cord birth defects, supports maintenance of healthy muscles and nervous system.
- **Vitamin D:** Essential for the development of strong, healthy bones, teeth and muscles in children and helps prevent pre-eclampsia during pregnancy, preterm delivery and low birth weight.



Benefits of Fish Consumption

The importance of fish throughout the lifecycle

Provides the mother with good nutrition for breastfeeding the baby which leads to a healthy child who will become a healthy adolescent.

Benefits of consuming fish for pregnant women

- Provides good nutrition for the unborn baby during pregnancy.
- Support the unborn baby's brain to develop.
- It will support the baby to become smarter, grow well and help both the mother and child to stay healthy.
- The nutrients in fish can help pregnant mothers.

Benefits of fish consumption for children starting at 6 months of age

- Supports a child's brain development.
- Makes children have strong blood vessels and muscles.
- Helps children to have good clear eyesight.
- Helps children to have the ability to quickly capture information.

Benefits of including fish as part of the School Feeding Program

- Children will be able to focus on learning and will get better results in school.
- Fish can support both physical development and cognitive development.
- Strengthens the immune system for the prevention of childhood illness.

Benefits of fish in hospital menus

- Nutrients found in fish such as protein, essential fats, iron and zinc can help patients recover more quickly from illness.
- Because fish have many nutrients, eating fish can help people feel healthy and stay healthy.

Eat fish at least twice a week!

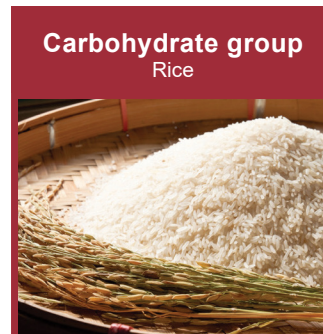
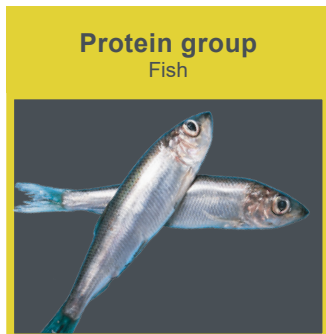
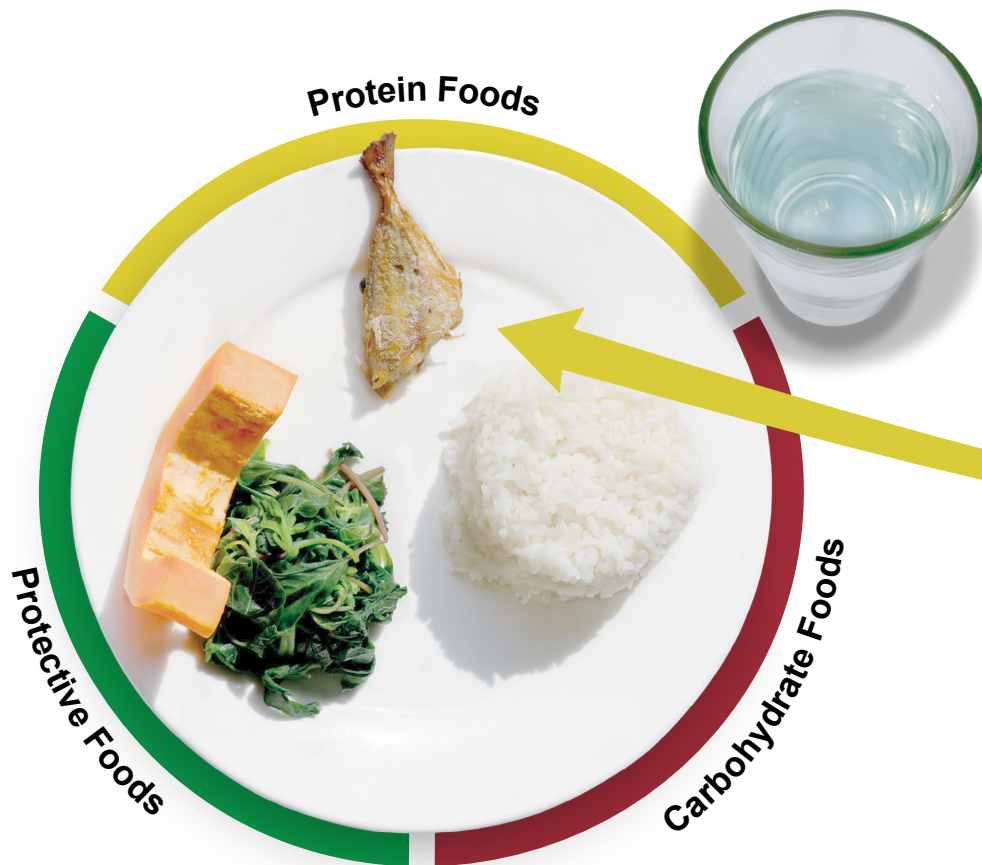


Foto @ MdS, Menu ba Programa Merenda Eskolár

Choose Protein Rich Foods

How to make a well-balanced, nutritious menu

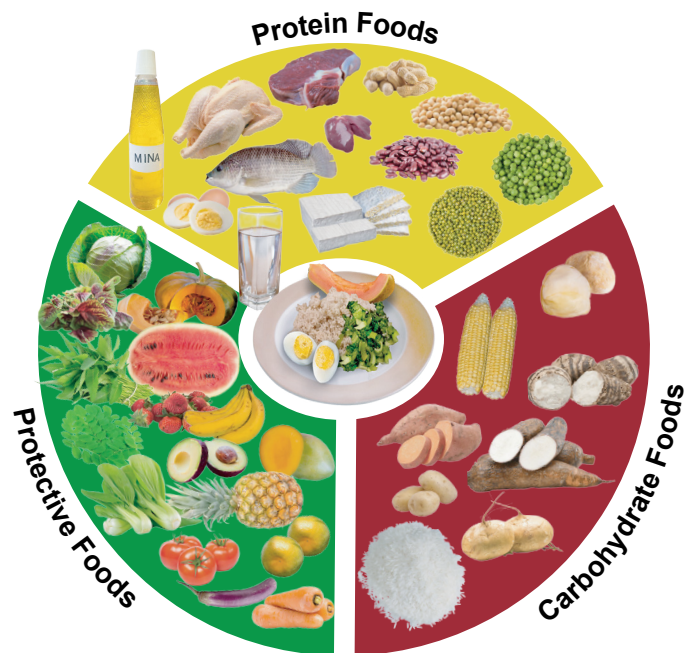
Eat protein rich foods every day! Try to eat fish twice a week.

Choose one protein food.

Choose one carbohydrate food.

Choose two foods from the protective foods group (try 1 fruit and 1 vegetable)

Drink clean water!



Plan and Prepare Healthy Meals

When are the 7 important times to wash hands?



1
Before cooking or preparing food



2
Before eating, or before feeding a baby



3
After using the toilet



4
After changing a baby's diaper



Wash hands regularly with soap and running water for a minimum of 20 seconds



5
After touching animals



6
After coughing or sneezing



7
When caring for (touching) sick people

Plan and Prepare Healthy Meals

How to handle and care for fish to ensure the fish stays fresh, healthy and safe for eating

Fish that are healthy for you and your family are fish that have been handled with care, kept cold and clean.

Care

Select fish that have been handled properly. Fish can go off quickly if they are cut, the skin is damaged or their guts have been split. Fish that is fresh will have:

- Shiny red gills.
- No bad smell.
- Bright and shiny color.
- Firm and full flesh.
- Clear and shiny eyes (not milky).

Cool

Fish can spoil quickly at high temperatures because bacteria and enzymes are very active at high temperatures. Keep fish as cold as possible, and chill them immediately once they have been cleaned and gutted.

Fish can be cooled by:

- Keeping fish wet and shaded.
- Store fish with crushed ice, place them with their stomachs facing up if they haven't been cleaned yet.
- Place fish in cold water.
- Place fish in a freezer, if available.



Fish can be kept safely for only 2 hours when not refrigerated or not stored on ice.

Clean

Keep fish clean to avoid contamination with bacteria and dirt. Bacteria and dirt can be found on fish and in the guts, and on the tools and people.

When preparing fish for cooking or eating.

- Never place fish directly on the ground.
- Use a clean basin or bowl to store fish.
- Separate fish from garbage and animal wastes.
- Wash hands and equipment thoroughly and regularly.
- Use clean water to wash the fish. (Fish can be soaked in lemon juice to remove the smell).
- Keep the work area for cutting and preparing fish clean.
- Do not allow raw fish to touch cooked fish,



Foto @ Jipé/SPC, Tratamentu ai-han tasi sira iha Timor-Leste



Plan and Prepare Healthy Meals

Five Key Points for Food Safety

The Ministry of Health recommends 5 key behaviors for safe food preparation.

What does safe food and handwashing mean?

1. Maintain Cleanliness

- Wash vegetables before cooking.
- Keep fingernails short.
- Tie up or cover your hair while preparing food in schools or hospitals.
- Keep animals out of the kitchen including insects and mice.
- Ensure that wooden cuttings boards remain clean.
- Clean knives and other cooking equipment well.

2. Separate raw and cooked foods

- Keep raw meat, fruit and vegetables separate from cooked foods.

3. Cook foods thoroughly

- To prevent sickness from uncooked foods, cook animal foods especially fish, chicken and pork to a safe temperature (these foods must be fully cooked).
- For legumes, bring to boiling then simmer.

4. Keep foods at a safe temperature

- Keep fresh vegetables in a cool and dry place and do not expose them to the sun.
- Keep uncooked foods, especially rice, away from the ground and walls.
- If the food has a label, see expiration date and if it has expired throw the food away.
- After food is cooked, store in a tightly sealed container.
- If cooked food is not consumed within 2 hours, throw this food away.
- Keep food safe to protect health. Bacteria can live in the food that has been cooked and can cause various diseases when consumed.

5. Use safe (potable) water

- Boil water and purify it before using or drinking.
- If the water is dirty or unclear, filter it using clean cloth and boil.



Plan and Prepare Healthy Meals

Share Responsibilities

- Create a discussion in a friendly environment between family members about how to spend money on purchasing nutritious foods from the three food groups (proteins, carbohydrates and fruits/vegetables).
- Decide together how much money to spend, so that everyone is happy.
- Share tasks amongst family members in the household so that everyone has responsibilities. For example, men can clean fish, women can collect the vegetables, boys and girls can help wash dishes.

Plan and Prepare Healthy Meals

Deboning fish for children six months to two years old



Remove the bones from the fish before mashing.



Mash the fish to a mushy consistency before feeding it to young children.



Fish porridge is now safe for young children to consume.

Plan and Prepare Healthy Meals

Fish powder is easy to mix with recipes

1



You can mix fish powder into other recipes.

2



Add 1-2 spoons into rice porridge.

3



Fish porridge is ready to eat.

N&G Nutritious & Tasty
Made by the Beacou women's group



READY TO EAT

Everyone can eat ; mix with rice porridge:
one  with one  can also be mixed
with one serve of vegetables for one 

Ingredients:
Fish, Shrimp, Moringa, Garlic, Red onion, Salt, Sugar, Chilli, Oil
Sesame seeds, Pepper powder.

Steps to Cook FISH CURRY

Wash hands with soap before handling and cooking food



1

Wash, scale and gut the fish.



2

Remove the fish head and bones.



3

Clean (and peel) vegetables like potatoes, carrots and zucchini/pumpkin and then cut into squares.



4

Grind spices together (onions, ginger, turmeric) and set aside.



5

Add 200 ml of water to coconut pulp, mix and remove the pulp.



6

Add oil to frying pan, add ingredients and fry until the smell is nice and color turns orange.



7

Mix in the coconut water from step 5 with the other seasonings.



8

Add all the chopped ingredients and mix together.



9

Add salt, pepper, potato and mix.



10

Add the fish and stir, until cooked.



11

Serve into a bowl and leave to cool, but not for more than 2 hours.



12

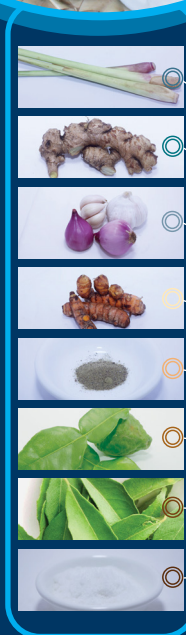
Fish curry is ready to serve.

Ingredients

FISH CURRY



Ingredients	For 5 people	For 10 people
1. Tilapia fish	2	4
2. Potatoes	2	4
3. Coconut curry	2 cups	4 cups
4. Capsicum	2	4
5. Zucchini/Pumpkin	½	1
6. Carrots	2	4
7. Water	1 small bowl	2 small bowl
8. Coconut oil	4 spoons	6 spoons
9. Tomato	4	6



Spices	For 5 people	For 10 people
1. Lemon grass	3 stems	6 stems
2. Ginger	1 piece	2 pieces
3. Red Onion and Garlic	½	1
4. Turmeric	1 piece	2 pieces
5. Pepper	1 teaspoon	2 teaspoons
6. Lime leaf	4	6
7. Curry leaf	4	6
8. Salt	1 teaspoon	2 teaspoons

Steps to Cook FISH SALAD

Wash hands with soap before handling food and cooking.



1

Wash all the ingredients.



2

Clean fish, remove the fish bones, cut the fish into cubes and mix with salt and pepper.



3

Fry fish until it is fully cooked.



4

Cut vegetables into squares and set aside.



5

Prepare salad dressing with coconut oil, salt, pepper, lime and honey.



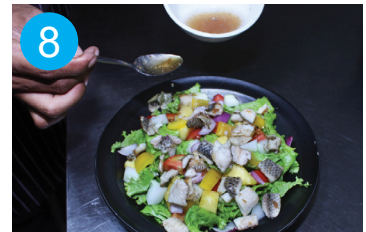
6

Mix cucumber, tomato, lettuce, bell pepper.



7

Add the fish pieces to the top of the salad.



8

Add the salad dressing.



9

Fish salad is ready to serve.

Ingredients

FISH SALAD



Ingredients	For 5 people	For 10 people
1. Tilapia fish	2	4
2. Pineapple	1/2	1
3. Cucumber	1	2
4. Lettuce	1 head	2 head
5. Bell pepper	1	2
6. Tomato	4	8
7. Coconut oil	4 spoons	6 spoons



Spices	For 5 people	For 10 people
1. Lime	1	2
2. Red onion	4 corms	6 corms
3. Pepper	1 teaspoon	2 teaspoon
4. Salt	1/2 teaspoon	1 teaspoon
5. Honey	2 spoons	4 spoons

Steps to Cook FISH SATAY



Wash hands with soap before handling and cooking food



1

Wash all the ingredients.



2

Clean fish, remove the guts and cut into cubes.



3

Dice eggplant, bell pepper and onion.



4

Grind turmeric, ginger and garlic together.



5

Add coconut oil, fish, salt and pepper to pan. Mix together.



6

Put fish pieces, eggplant bell pepper and onion on a skewer.



7

Cover and let it sit for 5 five minutes so seasonings absorb.



8

Soak tamarind in hot water to make the satay sauce.



9

Fry peanuts then crush to a rough powder.



10

Mix peanut powder with garlic and tamarind.



11

Add 2 spoons of oil to frying pan then fry the satay skewers.



12

Decorate the plate with lettuce and put the satay on the top.



13

Place the dipping sauce in a bowl.



14

Fish satay is ready to serve.

Ingredients

FISH SATAY



Ingredients	For 5 people	For 10 people
1. Tilapia fish	2	4
2. Eggplant	2	4
3. Capsicum	3	6
4. Lettuce	3	6
5. Tamarind water	1 small bowl	2 small bowl
6. Onion	1	2
7. Coconut oil	1 small bowl	2 small bowl
8. Satay sticks	10	20



Spices	For 5 people	For 10 people
1. Peanuts	1 small bowl	2 small bowl
2. Red & White Onions	4	8
3. Turmeric	1 piece	2 pieces
4. Soy sauce	2 small bowl	4 small bowl
5. Pepper	1 teaspoon	2 teaspoons
6. Honey	2 tablespoons	4 tablespoons
7. Salt	½ teaspoon	1 teaspoon

Steps to Cook STEAMED FISH WITH PUMPKIN in PALM LEAVES

Wash hands with soap before handling and cooking food



1

Wash all the ingredients.



2

Grind spices together (lemongrass, garlic, red onion, ginger, and turmeric).



3

Clean fish, remove guts and cut into cubes.



4

Remove pumpkin seeds and cut into cubes.



5

Put tamarind in warm water until it turns red.



6

Mix fish with pumpkin, add the remaining ingredients; coconut oil, basil leaves, tamarind and salt.



7

Prepare pot for steaming and place on the stove.



8

Wave banana leaves over the fire until wilted then wrap the fish in the leaves.



9

Steam the wrapped fish.



10

Wait 20 minutes then take the wrapped fish out of the pot.



11

Steamed fish with pumpkin is ready to serve.

Flexible Ingredients:

- Banana leaves can be substituted for palm leaves.
- Recipe can be fried rather than steamed.

Ingredients

STEAMED FISH WITH PUMPKIN in PALM LEAVES



Ingredients	For 5 people	For 10 people
1. Tilapia fish	2	4
2. Pumpkin	1	1
3. Tamarind water	2 tablespoons	4 tablespoons
4. Coconut oil	2 tablespoons	4 tablespoons
5. Banana leaves	1 leaf	2 leaves



Spices	For 5 people	For 10 people
1. Lemon grass	2 stems	4 stems
2. Ginger	1 piece	2 pieces
3. Turmeric	1 piece	2 pieces
4. Garlic/red onion	2 pieces	4 pieces
5. Pepper	1 teaspoon	2 teaspoons
6. Basil leaves	1 handful	2 handfuls
7. Salt	1 teaspoon	2 teaspoons

Steps for Cooking FISH FILLETS

Wash hands with soap before handling and cooking food



1

Wash all the ingredients.



2

Wash, scale, gut, debone and fillet the fish.



3

Mix lime juice, pepper, ginger, onion, garlic with egg.



4

Make breading by mixing flour/cassava powder, salt, and pepper.



5

Dip fish in egg batter then dip in the cassava flour mix.



6

Add oil to pan and heat.



7

Add the breaded fish to the frying pan.



8

Sauce preparation.

- Slice tomatoes, onion, garlic, parsley and set aside.
- Add oil to frying pan and mix in onion.
- Add tomatoes, a little water, salt, and pepper.
- Add rice powder with two spoons of water then put in the sauce.
- Add and mix honey (or sugar), spring onions, and parsley.



9

Pour the sauce over the fish then decorate it with parsley and lemon.



10

Fish fillet with tomato sauce is ready to serve.

Flexible Ingredients:

- Corn flour or bread flour can be used if cassava flour is not available.

Ingredients

FISH FILLETS



Ingredients	For 5 people	For 10 people
1. Tilapia fish	2	4
2. Egg	1	2
3. Pineapple	½	1
4. Cassava or rice flour	1 bowl	2 bowls
5. Coconut oil	2 tablespoons	4 tablespoons
6. Tomato	4	8
7. Cooking oil	½ bowl	1 bowl

Spices	For 5 people	For 10 people
1. Lime	2 fruits	4 fruits
2. Parsley leaf	1 cup	2 cups
3. Spring onion	1 cup	2 cups
4. Ginger	2 pieces	4 pieces
5. Garlic/red onions	1 teaspoon	2 teaspoons
6. Pepper	1 small dish	2 small dishes
7. Salt	1 teaspoon	2 teaspoons

Spices	For 5 people	For 10 people
Tomato, spring onions, parsley, pepper, grind together	2 cups	4 cups
Salt, lime juice and water 100ml	1 serve	2 serves

Steps to Make FISH CROQUETTES

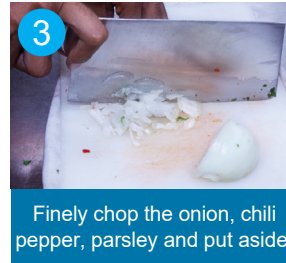
Wash hands with soap before handling and cooking food



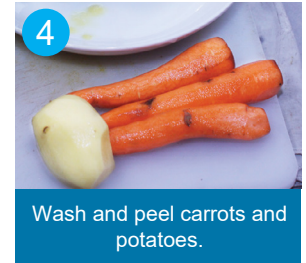
1 Wash all the ingredients.



2 Scale, gut and fillet the fish (remove the bones).



3 Finely chop the onion, chili pepper, parsley and put aside.



4 Wash and peel carrots and potatoes.



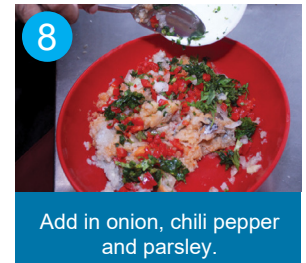
5 Grate carrots with potatoes.



6 Cut the fish into tiny pieces.



7 Mix carrots, potatoes, and fish.



8 Add in onion, chili pepper and parsley.



9 Add salt, pepper, egg yolk, and cassava flour.



10 Heat oil in a pan.



11 Form fish mixture into oval balls and roll in egg batter.



12 Fry the fish croquettes until well done.



13 Decorate fish croquettes with lettuce, lime, and parsley.



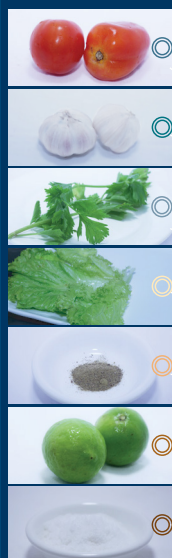
14 Fish croquettes are ready to serve.

Ingredients

FISH CROQUETTE



Ingredients	For 5 people	For 10 people
1. Tilapia fish	2	4
2. Egg	1	4
3. Breadcrumbs	2 cups	4 cups
4. Cassava flour	2 bowls	4 bowls
5. Capsicum	½	1
6. Onion	½	1
7. Carrot	1 bowl	1 bowl
8. Potato	3	6
9. Coconut oil	2 tablespoons	4 tablespoons
10. Cooking oil	½ bowl	1 bowl



Spices	For 5 people	For 10 people
1. Tomato	2	4
2. Garlic	2 corms	4 corms
3. Parsley leaf	1 cup	2 cups
4. Lettuce	1 head	2 heads
5. Pepper	1 teaspoon	2 teaspoons
6. Lime	1	2
7. Salt	1 teaspoon	2 teaspoons

Steps to Make FISH PANADA

Wash hands with soap before handling and cooking food



1

Wash all the ingredients.



2

Clean, scale and gut the fish.
Cut into fillets.



3

Season the fish with lime juice,
pepper, ginger, onion and garlic.
Crack egg into separate bowl.



4

Mix cassava powder with
salt and pepper.



5

Dip the fish in egg and layer the
fish with the cassava powder.



6

Add oil to frying pan and heat.



7

Fry the fish until well cooked,
the color will turn orange.



8

Take the fish out and
prepare the sauce.

- Cut the tomatoes, onion, and garlic.
- Cut and grind the green onion and parsley.
- Heat coconut oil in frying pan, add onion and garlic, stir until the flavor comes out.
- Add tomatoes and stir well. Add a bit of water, salt, and pepper.
- Add two spoons of rice flour and water. Stir.
- Add pineapple and mix well.
- The sauce is ready.



9

Put fish on a plate, add the
sauce to the fish, decorate it
with parsley and sliced lime.



10

The fish panada with tomato
sauce with pineapple is ready.

Flexible Ingredients:

- Corn flour or bread flour can be used to replace cassava flour.
- Mango or other sweet fruit can replace the pineapple.

Ingredients

FISH PANADA



Ingredients	For 5 people	For 10 people
1. Tilapia fish	2	4
2. Egg	1	2
3. Pineapple	1 small half	1 large half
4. Breadcrumbs	1 bowl	2 bowls
5. Cassava flour	1 bowl	1 bowl
6. Carrot	2	4
7. Potato	2	4
8. Capsicum	1/2	1
9. Coconut oil	2 teaspoons	4 teaspoons
10. Cooking oil	1/2 bowl	1 bowl
11. Water	2 small bowls	4 small bowls

Spices	For 5 people	For 10 people
1. Ginger	2 pieces	4 pieces
2. Lime	1	2
3. Garlic & red onion	2 1/2	4 1/2
4. Onion	1/2	1
5. Pepper	1 teaspoon	2 teaspoons
6. Spring onion	1 branch	2 branches
7. Parsley leaf	1 bunch	2 bunches
8. Salt	2 teaspoons	4 teaspoons

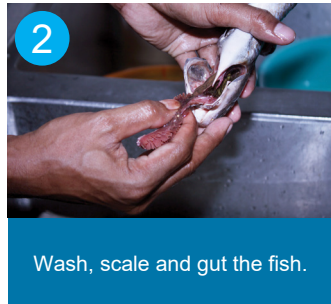
Steps to Cook FISH SOUP

Wash hands with soap before handling and cooking food



1

Wash all the ingredients.



2

Wash, scale and gut the fish.



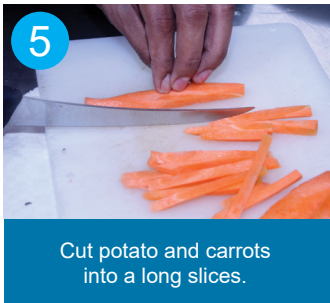
3

Cut the fish into 2 pieces.



4

Prepare ingredients; slice the red onion and grind the lemongrass.



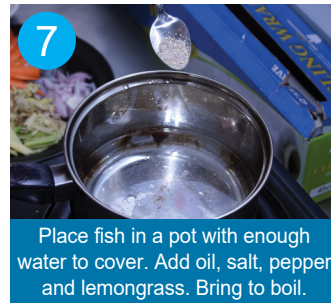
5

Cut potato and carrots into a long slices.



6

Cut spring onions, ginger, parsley and basil.



7

Place fish in a pot with enough water to cover. Add oil, salt, pepper and lemongrass. Bring to boil.



8

Add potatoes and carrots. Stir until it is cooked, and the flavor comes out.



9

Add the fish and wait until it is thoroughly cooked.



10

Add basil and parsley for flavor.



11

Place fish in a bowl and pour the soup over the fish.



12

The fish soup is ready.

Ingredients

FISH SOUP



Ingredients	For 5 people	For 10 people
1. Tilapia fish	2	4
2. Potato	2	4
3. Carrot	2	4
4. Coconut oil	2 tablespoons	4 tablespoons



Spices	For 5 people	For 10 people
1. Tomato	2	4
2. Jungle chili	2 fruits	4 fruits
3. Ginger	1 piece	2 pieces
4. Lemon grass	1 stem	2 stems
5. Basil leaves	1 brunch	2 bunches
6. Parsley leaf	1 bunch	2 bunches
7. Spring onion	1 stem	2 stems
8. Red onion	2	4
9. Pepper	1 tablespoon	2 tablespoons
10. Salt	2 teaspoons	4 teaspoons

Steps to Cook FISH SOUP WITH RED BEANS

Wash hands with soap before handling and cooking food



1

Wash all the ingredients.



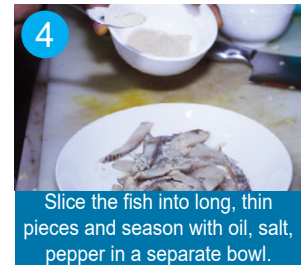
2

Wash, scale and gut the fish.



3

Cook the red beans until soft.



4

Slice the fish into long, thin pieces and season with oil, salt, pepper in a separate bowl.



5

Cut potatoes and carrots into small flat squares.



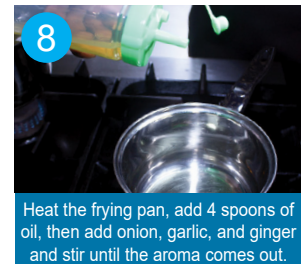
6

Cut tomatoes into cubes.



7

Cut spring onion, parsley, ginger, red onion and garlic.



8

Heat the frying pan, add 4 spoons of oil, then add onion, garlic, and ginger and stir until the aroma comes out.



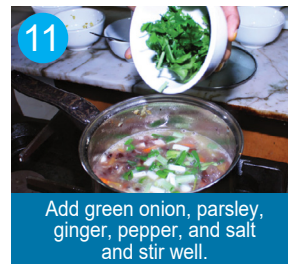
9

Put potatoes and carrots into the frying pan, stir them until they are half-cooked.



10

Add cooked beans and mix together. Then add 2 small bowls of water.



11

Add green onion, parsley, ginger, pepper, and salt and stir well.



12

Add in the sliced fish.



13

Fry the beans.

- Heat oil in frying pan, onion, garlic, ginger and stir well.
- Fry the beans and add tomatoes, parsley, pepper, and salt.

Flexible Ingredients:

- Any type of bean can be used, white, black or red.



14

Serve the fish with beans on a plate, decorate with parsley.

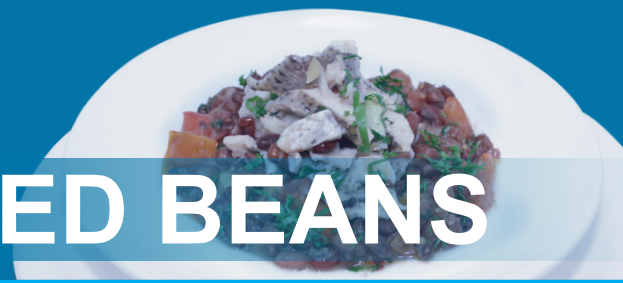


15

The fish with beans is ready to serve.

Ingredients

FISH SOUP WITH RED BEANS



Ingredients	For 5 people	For 10 people
1. Tilapia fish	4	8
2. Red beans	2 small bowls	4 small bowls
3. Potato	4	8
4. Carrots	2	4
5. Coconut oil	2 tablespoons	4 tablespoons



Spices	For 5 people	For 10 people
1. Tomato	4	8
2. Red onion & garlic	2 1/2	5
3. Ginger	1 piece	2 pieces
4. Spring onion	1 stem	2 stems
5. Parsley leaf	1 stem	2 stems
6. Pepper	1 teaspoon	2 teaspoons
7. Salt	2 teaspoons	4 teaspoons

Steps to make STEAMED BREADFRUIT AND FISH

Wash hands with soap before handling and cooking food



1

Wash all the ingredients.



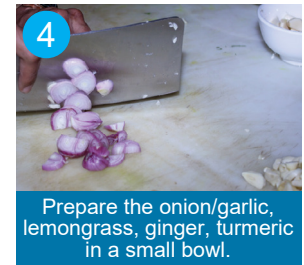
2

Wash, gut, scale and debone the fish.



3

Clean the breadfruit, peel the skin, remove the middle core, then cut it into cubes.



4

Prepare the onion/garlic, lemongrass, ginger, turmeric in a small bowl.



5

Season the fish with oil, pepper, and salt.



6

Grind the spices together, add oil and put on a separate dish.



7

Season the breadfruit in a cooking pot, add oil, pepper, and salt.



8

Cook the breadfruit in the pot, stir it till the flavor comes out.



9

Add the lemongrass into the pot.



10

When the breadfruit is nearly soft, add a bit of water and basil to enrich the flavor, the sliced fish with oil, salt, and pepper.



11

Fry the fish.



12

Place the fish on top of the cooked breadfruit.



13

The breadfruit with fish is ready to serve.

Flexible Ingredients:

- if breadfruit is not available replace it with sweet potato, potato or cassava.

Ingredients

STEAMED BREADFRUIT AND FISH



Ingredients	For 5 people	For 10 people
1. Tilapia fish	2	4
2. Breadfruit	4 fruits	6 fruits
3. Cooking oil	2 tablespoons	4 tablespoons
4. Water	2 bowls	4 bowls



Spices	For 5 people	For 10 people
1. Turmeric	2 pieces	4 pieces
2. Ginger	2 pieces	4 pieces
3. Lemongrass	2 stems	4 stems
4. Basil leaves	1 handful	2 handfuls
5. Red onions	4	6
6. Pepper	1 tablespoon	2 tablespoons
7. Salt	2 teaspoons	3 teaspoons

Steps to make FISH PORRIDGE

Wash hands with soap before handling and cooking food



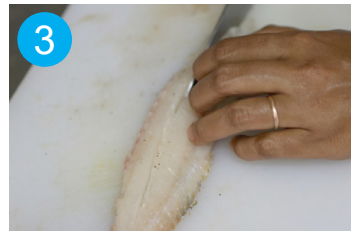
1

Clean the mustard greens, tomatoes, onions and local rice.



2

Wash, gut and scale the fish.



3

Carefully remove bones and fillet the fish.



4

Slice vegetables and tomatoes.



5

Boil water to cook local rice.



6

Add the fish and tomatoes, stir then add the mustard greens.



7

Remove vegetables when cooked, then add oil and salt to taste.



8

Mash porridge before feeding it to young children.

Ingredients

FISH PORRIDGE



Ingredients	For 2 children	For 5 children
1. Tilapia fish	1	2
2. Local rice	½ bowl	1 bowl
3. Amaranth/Mustard leaf	½ bundle	1 bundle
4. Tomato	1	2
5. Coconut oil	2 teaspoons	4 teaspoons



Spices	For 2 children	For 5 children
1. Garlic	1 corm	2 corms
2. Salt	1 teaspoon	2 teaspoons

Steps to make DRIED FISH FLAKES

Wash hands with soap before handling and cooking food



1

Wash, gut and scale the fish.



2

Steam the fish.



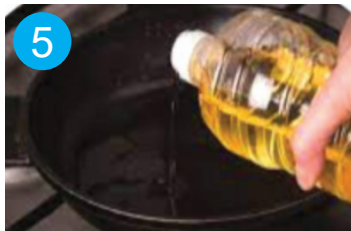
3

Shred the fish and separate it from the bones.



4

Mix the prepared spices by grinding with a mortar and pestle.



5

Pour just two tablespoons of cooking oil into the pan.



6

Add the ground spices, stirring until fragrant, then add the lime leaves.



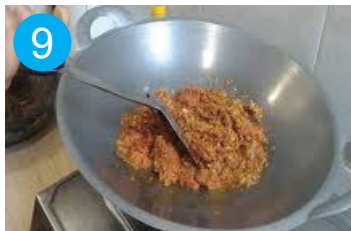
7

Add coconut curry or coconut milk, stir with spices until it boils.



8

Add palm sugar, salt and turmeric, stir until thick.



9

Add the fish flakes, stir gently until completely dry.



10

Remove fish from pot and leave it to cool.



11

The fish flakes are ready. They can be sprinkled over rice or porridge for feeding children.



12

Stored in a jar keeping the lid tightly closed after opening, it can be stored for up to three months.

Ingredients

DRIED FISH FLAKES

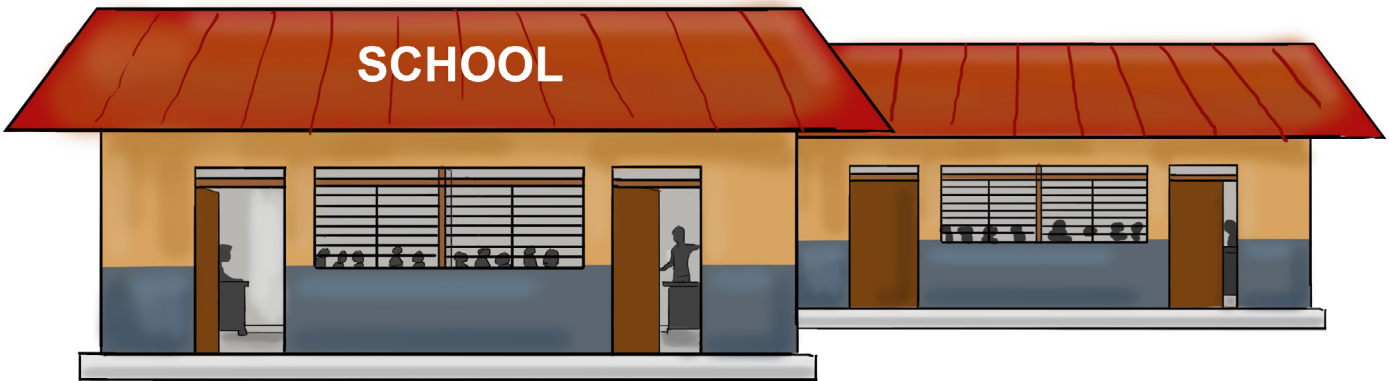
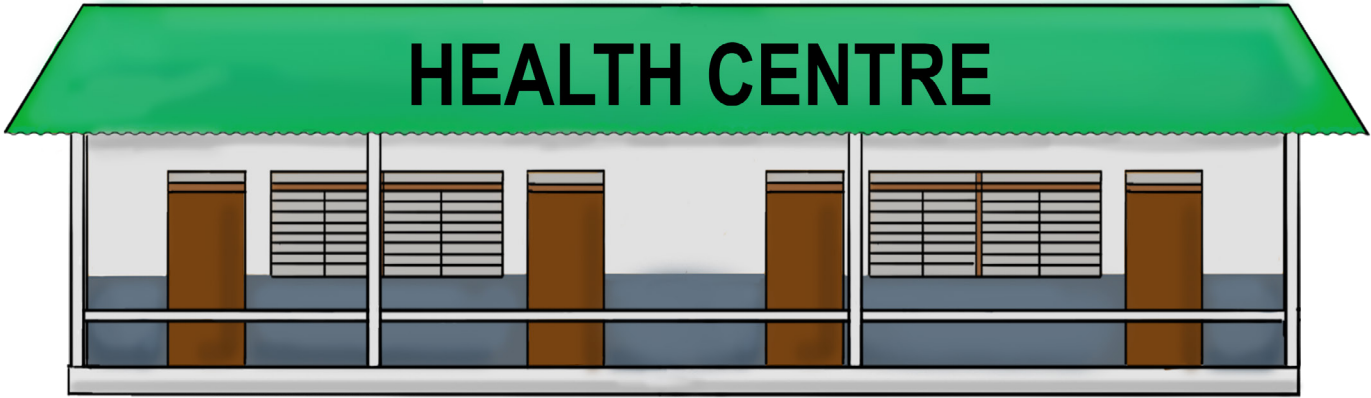


Ingredients	For 5 people	For 10 people
1. Tilapia fish	6	12
2. Coconut milk	1 small bowl	2 small bowls
3. Cooking oil	1 small bowl	2 small bowls
4. Palm sugar rounds	3	6



Spices	For 5 people	For 10 people
1. Red Onion & garlic	4 corms	8 corms
2. Turmeric	1 piece	2 pieces
3. Ginger	1 piece	2 pieces
4. Pepper	1 teaspoon	2 teaspoons
5. Salt	1 teaspoon	2 teaspoons

Ingredient guidelines for institutions



Recipe

Fish Curry

(Page 26)



Ingredient	25 People	50 People	100 People
1. Tilapia	8 kg	16 kg	32 kg
2. Potato	1 ½ kg	3 kg	6 kg
3. Coconut milk	2 liters	4 liters	8 liters
4. Capsicum (Bell pepper)	6	12	25
5. Zucchini/pumpkin	2	5	10
6. Carrot	10	20	40
7. Water	1 liter	2 liters	4 liters
8. Coconut oil	½ cup	1 cup	2 cups
9. Tomato	6	12	25
Use enough spices to give sufficient flavor	Lemongrass, ginger, red onion & garlic, turmeric, pepper, lime leaves, curry leaf, salt		

Fish Salad

(Page 28)



Ingredient	25 People	50 People	100 People
1. Tilapia	8 kg	16 kg	32 kg
2. Pineapple	5	10	20
3. Cucumber	5	10	20
4. Lettuce	5 heads	10 heads	20 heads
5. Capsicum	5	10	20
6. Tomato	12	25	50
7. Coconut oil	½ cup	1 cup	2 cups
Use enough spices to give sufficient flavor	Lime, red onion, pepper, salt		

Recipe

Fish Satay

(Page 30)



Ingredient	25 People	50 People	100 People
1. Tilapia	8 kg	16 kg	32 kg
2. Eggplant	8	16	32
3. Capsicum	6	12	24
4. Tamarind water	1 large bowl	2 large bowls	4 large bowls
5. Onion	4	8	16
6. Coconut oil	1 large bowl	2 large bowls	4 large bowls
7. Satay sticks	25	50	100
Use enough spices to give sufficient flavor	Peanuts, red onion, turmeric, soy sauce, pepper, honey, salt and lettuce to decorate (optional)		

Baked Fish with Pumpkin

(Page 32)



Ingredient	25 People	50 People	100 People
1. Tilapia	8 kg	16 kg	32 kg
2. Pumpkin	4	8	16
3. Tamarind water	½ small bowl	1 small bowl	2 small bowls
4. Coconut oil	2 tablespoons	4 tablespoons	½ cup
5. Banana leaves	10 leaves	20 leaves	40 leaves
Use enough spices to give sufficient flavor	Turmeric, garlic, pepper, basil leaves, salt		

Recipe

Fish Fillets

(Page 34)



Ingredient	25 People	50 People	100 People
1. Tilapia	8 kg	16 kg	32 kg
2. Eggs	4	8	16
3. Pineapple	2	4	8
4. Cassava flour/rice flour	3 bowls	6 bowls	12 bowls
5. Coconut oil	½ bowl	1 bowl	2 bowls
6. Tomato	8	16	32
7. Cooking oil	1 bowl	2 bowls	4 bowls
Use enough spices to give sufficient flavor	Lime, parsley, spring onion, ginger, garlic, pepper, salt		

Fish Croquettes

(Page 36)



Ingredient	25 People	50 People	100 People
1. Tilapia	8 kg	16 kg	32 kg
2. Eggs	2	4	8
3. Breadcrumbs	1 cup	2 cups	4 cups
4. Cassava flour	1 cup	2 cups	4 cups
5. Capsicum	2	4	8
6. Onion	2	4	8
7. Carrot	4	8	16
8. Potato	4	8	16
9. Coconut oil	1 cup	2 cups	4 cups
10. Cooking oil	1 cup	2 cups	4 cups
Use enough spices to give sufficient flavor	Tomato, garlic, parsley, lemon and salt		

Recipe

Fish Panada

(Page 38)



Ingredient	25 People	50 People	100 People
1. Tilapia	8 kg	16 kg	32 kg
2. Eggs	2	4	8
3. Pineapple	2	4	8
4. Breadcrumbs	1 bowl	2 bowls	4 bowls
5. Cassava flour	2 bowls	4 bowls	6 bowls
6. Carrot	8	16	32
7. Potato	8	16	32
8. Capsicum	2	4	8
9. Coconut oil	4 tablespoons	6 tablespoons	8 tablespoons
10. Cooking oil	½ cup	1 cup	2 cups
11. Water	1 cup	1 cup	1 liter (4 cups)
Use enough spices to give sufficient flavor	Ginger, lime, red onion or garlic, onion, pepper, spring onion, parsley, and salt		

Fish Soup

(Page 40)



Ingredient	25 People	50 People	100 People
1. Tilapia	8 kg	16 kg	32 kg
2. Potato	8	16	32
3. Carrots	8	16	32
4. Coconut oil	1 cup	2 cups	4 cups
Use enough spices to give sufficient flavor	Tomato, ginger, lemongrass, basil leaves, parsley, spring onion, red onion, pepper and salt		

Recipe

Fish Soup with Red Beans

(Page 42)



Ingredient	25 People	50 People	100 People
1. Tilapia	8 kg	16 kg	32 kg
2. Red beans	1 kg	2 kg	4 kg
3. Potato	1 kg	2.5 kg	5 kg
4. Carrots	1 kg	2 kg	4 kg
5. Coconut oil	1 cup	2 cups	4 cups
Use enough spices to give sufficient flavor	Tomato, red onion/garlic, ginger, spring onion, parsley, pepper and salt		

Steamed Breadfruit and Fish

(Page 44)



Ingredient	25 People	50 People	100 People
1. Tilapia	8 kg	16 kg	32 kg
2. Breadfruit	3	6	12
3. Cooking oil	2 tablespoons	4 tablespoons	8 tablespoons
4. Water	1 cup	2 cups	3 cups
Use enough spices to give sufficient flavor	Turmeric, ginger, lemongrass, basil leaves, red onion, garlic, pepper and salt		

Recipe

Fish Porridge

(Page 46)



Ingredient	25 People	50 People	100 People
1. Tilapia	6 kg	12 kg	24 kg
2. Local rice	1 ½ kg	3 kg	6 kg
3. Mustard leaf	8 bundles	16 bundles	32 bundles
4. Tomato	8	16	32
5. Coconut oil	2 tablespoons	4 tablespoons	4 tablespoons
Use enough spices to give sufficient flavor	Garlic and salt		

Dried Fish Flakes

(Page 48)



Ingredient	25 People	50 People	100 People
1. Tilapia	8 kg	16 kg	32 kg
2. Coconut milk	1 ½ cups	3 cups	6 cups
3. Cooking oil	1 ½ cups	3 cups	6 cups
4. Palm sugar	5	10	20
Use enough spices to give sufficient flavor	Red onion, garlic, turmeric, ginger, pepper and salt		



Fish for Improving Nutrition Cookbook

The Fish for Improving Nutrition Cookbook features 12 culturally grounded and nutritious tilapia recipes, encouraging greater fish consumption. It is the first of its kind in Timor-Leste.

The cookbook's aim is to promote increased fish consumption, by educating about the benefits of fish and encouraging regular fish consumption in households, school meal programs and hospitals through tasty recipes using local ingredients.

Eating fish, rich in protein and vital nutrients for health and child development, can boost local economies when sourced from nearby fish farmers and fishermen. The recipes are easy to follow, with step-by-step photos and ingredient quantities provided for families (5-10 people) and public institutions (25, 50 and 100 people).

Happy cooking!

This cookbook has been produced as part of the PADTL2 project in collaboration with Mercy Corps and the Ministry of Health.