National Institute of Public Health

School of Public Health

CAMBODIAN

TRADITIONAL FOOD

PART 2

Nutrition Laboratory

2025

ACKNOWLEDGEMENT

We extend our deepest gratitude to the School of Public Health (SPH) at the National Institute of Public Health (NIPH) for providing the opportunity to conduct our cooking activities at the Nutrition Laboratory, along with the academic guidance, workspace, and financial support that have been vital to its success.

We sincerely appreciate our professors, whose visions and encouragement inspired the creation of this cookbook and guided its completion. We are especially grateful to H.E. Prof. Chhea Chhorvann, Director of NIPH; Prof. Heng Sopheab, Deputy Director of NIPH and supervisor of the project; Ms. Oy Sreymom, lecturer at SPH and Co-supervisor of the project, and Dr. Te Vannarath, Head of SPH, for their continuous support, insightful feedback, and approval of this initiative. Their leadership and dedication to academic excellence have been a true source of motivation. We also extend our gratitude to Dr. Sar Kanha, a lecturer at SPH, for her insightful comments on the cooking analysis results of the first dish.

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Special acknowledgment is due to our colleagues and the technical support team, Dr. Vadhana Cheata and Ms. Vann Monypov, for their invaluable assistance throughout the preparation before all the cooking processes and for their efforts in sharing our achievements on the SPH social media platforms, helping to extend the educational impact of this work.

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INTRODUCTION

This Cookbook, called Traditional Cambodian Recipes, Part 2, continues the mission initiated in 2024 to bridge Cambodian culinary traditions with nutritional science. Developed by the Nutrition Laboratory Team of the School of Public Health at the National Institute of Public Health (SPH–NIPH) in Cambodia.

As a continuation of the previous project, this project aims to explore not only the nutritional value of dishes but also ways to modify traditional Cambodian dishes into healthier versions aligned with World Health Organization (WHO) healthy diet recommendations. Thus, our new project, "Healthier Food Menu 2025," was developed. Four common Cambodian dishes have been selected for this project namely, Shrimp Lime Soup, Beansprouts with Tofu and Eggs, Somlor Brohoeu, and Braised Pork with Quail Eggs, representing a blend of popular Cambodian flavors. Cooking and nutritional analyses were conducted in the Nutrition Laboratory using nutritional analysis software.

This document details each stage of our process, from pre-cooking analysis, food preparation to post-cooking analysis and result interpretation. In addition to cooking, this project also involved SPH students and staff engaging in tastings of both versions of each dish (original and modified) to collect feedback through pre-designed questionnaires about taste preference. Additionally, the results have been shared on NIPH's social media platforms, at lunchtime seminar and compiled into a recipe book to ensure that the findings reach academic audiences in healthy Cambodian cuisine.

Finally, we hope that this cookbook could serve not only as a collection of scientifically analyzed recipes but also as an educational resource for students, researchers, and food enthusiasts. It reflects our commitment to promoting prior-cooking analysis, encouraging Cambodians to understand the foods they consume, calculate their calories intake, and practice healthy eating habits consistent with WHO and Ministry of Health recommendation toward a healthier and longer life for all.

TABLE OF CONTENT

WHO RECOMMENDATION FOR HEALHY DIET

- Consume less than 10% of your total daily energy from free sugars, 50 g (12 teaspoons) for someone with a healthy body weight on 2,000 kcal diet. For added health benefits, aim to keep free sugar intake below 5% of total energy.
- Consume less than 30% of total energy intake from fats.
- Consume less than 5 g of salt (1 teaspoon) per day. Salt should be iodized.
- Consume at least 400 g (i.e. five portions) of fruit and vegetables per day, excluding potatoes, sweet potatoes, cassava and other starchy roots.

1. Recipe Analysis

There were 2 recipes for each dish (Original and Modified recipes). The original recipe was sourced from the Nham Cookbook, while the modified version was adapted from the original recipe. The modified recipes were adjusted based on the WHO recommendations for a healthy diet, specifically focusing on three key components: added sugar, fat, and sodium content. Both recipes were analyzed using NutriSurvey V.2004 and INMUCAL V.4 software.

Given that the average Cambodian diet consists of three meals per day, the recommended intake values expressed as percentages of daily nutritional requirements are calculated based on a standard 2,000 kcal daily energy intake, distributed evenly across three meals.

The criteria of the calculation as mentioned below:

- Added sugar 5% of total energy per day: 25 g
- Fat 30% of total energy per day: 67 g
- Sodium less than 2000 mg per day

Measurement conversion:

- 1tablespoon = 15 g
- 1teaspoon = 5 g
- 1 cup = 240 g

The steps of analysis as follow:

Pre-cooked Analysis

Ingredients Preparation

Cooking Process

Post-cooked Analysis

2. Tasting survey

SPH students and staff were invited to taste both the original and modified versions of the dish. Participants were asked to complete questionnaires to indicate their preference between the two versions and provide comments and feedback for the improvement of the project.

SHRIMP LIME SOUP

Quick and simple to make. The lime juice, galangal, lemongrass, and kaffir lime leaves enhance the smell and taste of the soup making it so refreshing

DIRECTION

1. Butterfly the shrimps and remove the digestive tracts.
2. Boil 1 liter of water and add garlic, galangal, and lemongrass to the boiling water for 5 minutes.
3. Remove 50% of the mashed ingredients from the pot.
4. Put the mushrooms in the boiling pot for 3-5 minutes.
5. Add the shrimps, then salt, sugar, and fish sauce and continue boiling for 2 minutes.
6. Turn the heat off and add lime juice, thinly sliced lemongrass, and kaffir lime leaves.
7. Serve the soup in a large bowl garnished with basil and sawtooth coriander.

INGREDIENTS

600 g jumbo shrimps
200 g straw mushrooms
3 tbsp lime juice
2 stalks lemongrass, smashed
2 stalks lemongrass, sliced
5 kaffir lime leaves, sliced
4-5 slices galangal
2 cloves garlic, smashed
1 tsp salt
1.5 tsp sugar
1 tbsp fish sauce
10 basil leaves
4-5 sawtooth coriander leaves

Serving size: 4
Preparation time: 15 mins
Cooking time: 15 mins

Analysis Results
Original Recipe

INGRDIENTS

1. Shrimp. fresh raw: 600g
2. Lime juice 14g
3. Lemongrass 140g
4. Kaffir lime leaves 4g
5. Galangal 14g
6. Garlic, fresh-ap 6g
7. Salt table 6g
8. Fish sauce 16g
9. Leaf. hoary basil. raw 2g
10. Straw mushroom 200g
11. Culantro leave, fennel common 6g
12. Palm Sugar 8g

NOTES

- The amount of ingredients was adapted from the Nham book recipe

NUTRITION FACTS

Serving Size	**482g**	
Energy	**163.9 Kcal**	
Carbohydrate	5.3g	-
Fat*	2.4g	3.5%
Protein	29.7g	-
Sucrose	1.1g	-
Dietary Fiber	0.9g	-
Added Sugar*	2g	8%
Sodium*	918.6mg	45.9%
Iron	5.1mg	-
Calcium	63.1mg	-
Potassium	226.8mg	-
Magnesium	45.6mg	-
Zinc	2.4mg	-
Vit. B1	0.1mg	-
Vit. B2	0.1mg	-
Niacin	0.3mg	-
Vit. B6	0.2mg	-
Pantothenic acid	1.3mg	-
Folic acid	0.5µg	-
Vit. B12	2.0µg	-
Vit. C	10.3mg	-
Vit. A	9.4RAE	-

Analysis Results
Modified Recipe

INGRDIENTS

1. Shrimp. fresh raw: 600g
2. Lime juice 14g
3. Lemongrass 140g
4. Kaffir lime leaves 4g
5. Galangal 14g
6. Garlic, fresh-ap 6g
7. Salt table 1g
8. Fish sauce 16g
9. Leaf. hoary basil. raw 2g
10. Straw mushroom 200g
11. Culantro leave, fennel common 6g
12. Palm Sugar 8g

NOTES

- Adjusted the amount of salt from 6g to 1g

NUTRITION FACTS

Serving Size	**480.3g**	
Energy	**163.9 Kcal**	
Carbohydrate	5.3g	-
Fat*	2.4g	3.5%
Protein	29.7g	-
Sucrose	1.1g	-
Dietary Fiber	0.9g	-
Added Sugar*	2g	8%
Sodium*	419.3mg	21%
Iron	5.1mg	-
Calcium	63.1mg	-
Potassium	226.8mg	-
Magnesium	45.6mg	-
Zinc	2.4mg	-
Vit. B1	0.1mg	-
Vit. B2	0.1mg	-
Niacin	0.3mg	-
Vit. B6	0.2mg	-
Pantothenic acid	1.3mg	-
Folic acid	0.5µg	-
Vit. B12	2.0µg	-
Vit. C	10.3mg	-
Vit. A	9.4RAE	-

Original Recipe

NUTRITION FACTS

Serving Size	**482g**	
Energy	**163.9 Kcal**	
Carbohydrate	5.3g	-
Fat*	2.4g	3.5%
Protein	29.7g	-
Sucrose	1.1g	-
Dietary Fiber	0.9g	-
Added Sugar*	2g	8%
Sodium*	918.6mg	45.9%
Iron	5.1mg	-
Calcium	63.1mg	-
Potassium	226.8mg	-
Magnesium	45.6mg	-
Zinc	2.4mg	-
Vit. B1	0.1mg	-
Vit. B2	0.1mg	-
Niacin	0.3mg	-
Vit. B6	0.2mg	-
Pantothenic acid	1.3mg	-
Folic acid	0.5µg	-
Vit. B12	2.0µg	-
Vit. C	10.3mg	-
Vit. A	9.4RAE	-

Modified Recipe

NUTRITION FACTS

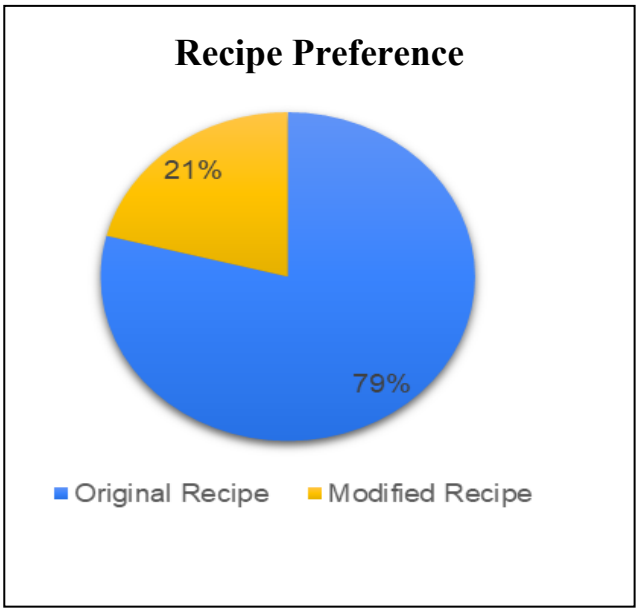
Serving Size	**480.3g**	
Energy	**163.9 Kcal**	
Carbohydrate	5.3g	-
Fat*	2.4g	3.5%
Protein	29.7g	-
Sucrose	1.1g	-
Dietary Fiber	0.9g	-
Added Sugar*	2g	8%
Sodium*	419.3mg	21%
Iron	5.1mg	-
Calcium	63.1mg	-
Potassium	226.8mg	-
Magnesium	45.6mg	-
Zinc	2.4mg	-
Vit. B1	0.1mg	-
Vit. B2	0.1mg	-
Niacin	0.3mg	-
Vit. B6	0.2mg	-
Pantothenic acid	1.3mg	-
Folic acid	0.5µg	-
Vit. B12	2.0µg	-
Vit. C	10.3mg	-
Vit. A	9.4RAE	-

NOTES

- The sodium content in the original recipe exceeds the WHO's daily recommendation for a three-meal diet. To align with healthy eating guidelines, the amount of salt was reduced from 6 g to 1 g, lowering the contribution from 45.9% to 21% of the recommended limit.
- No modifications were made to the added sugar and fat content, as both remain within the recommended limits.

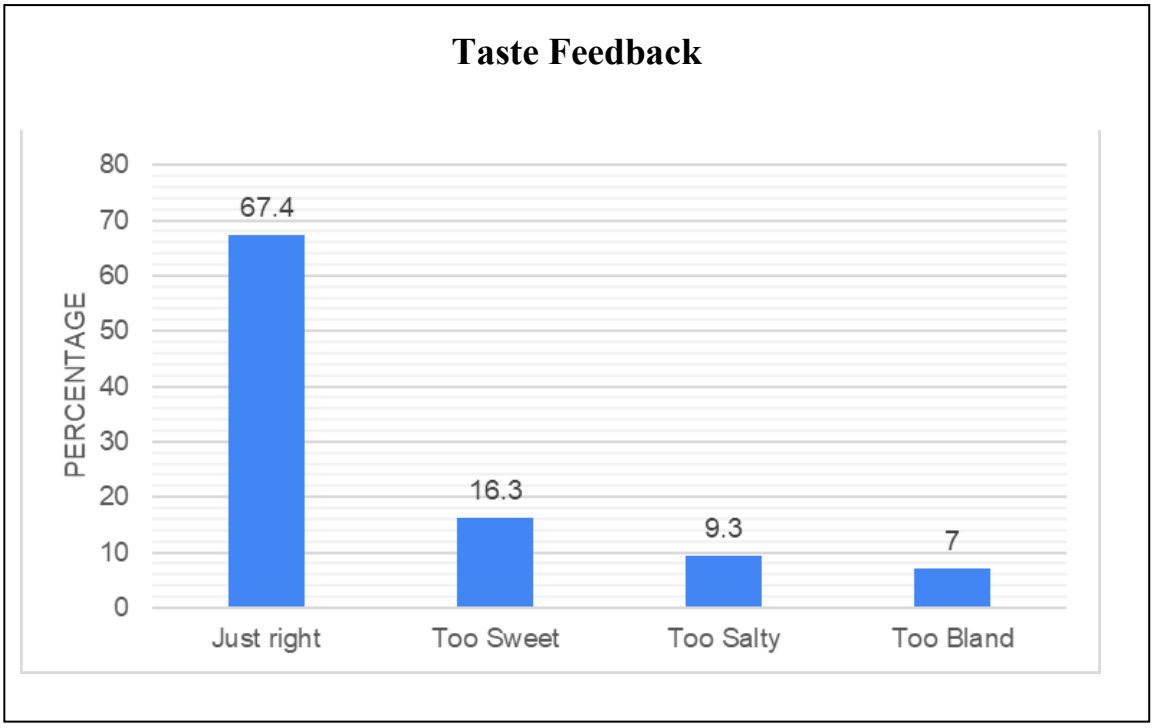
A total of 43 participants took part in the tasting survey for our first dish, Shrimp Lime Soup, consisting of 22 males and 21 females. The results indicate that 79% preferred the original recipe, while 21% favored the modified version as shown in **Graph 1**.

Graph 1: Recipe Preference Shrimp Lime Soup

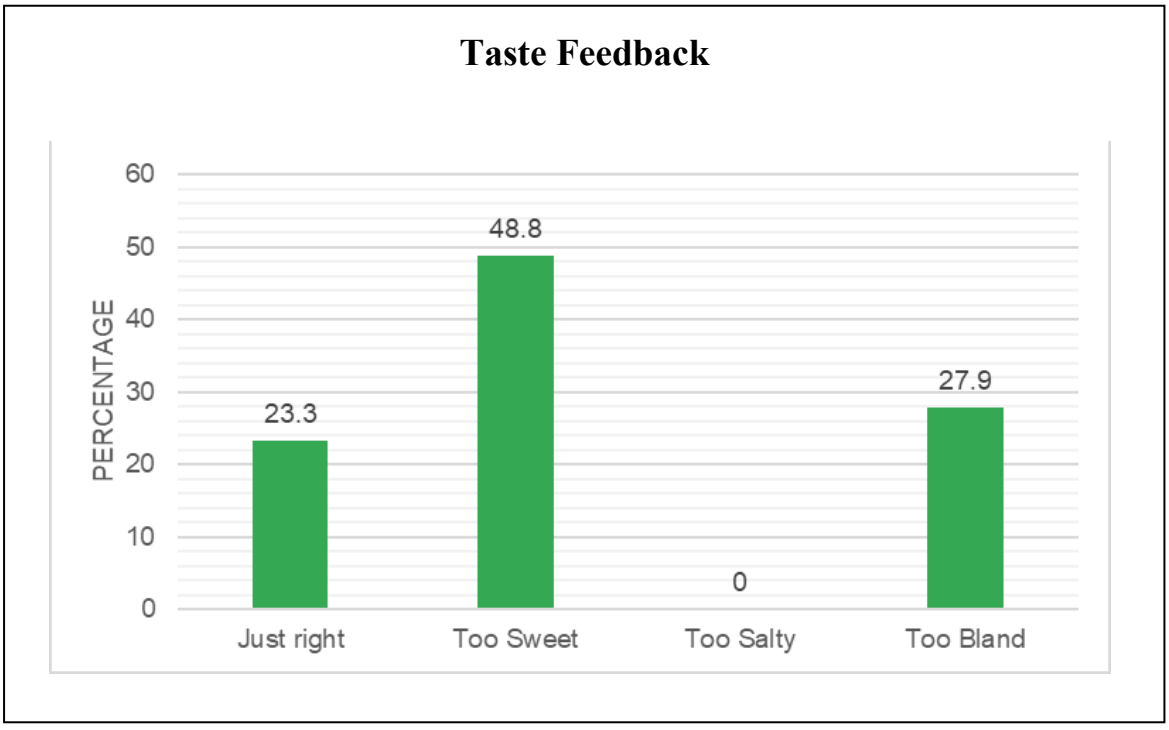


Graphs 2 and Graph 3 present tasting feedback for both recipes across four categories: "Just right" "Too sweet" "Too salty" and "Too bland" For the original recipe, 67.4% of participants rated it as "Just right" followed by 16.3% who felt it was "Too sweet" and 9.3% who found it "Too salty" Only 7% considered it "Too bland". In contrast, the modified recipe received the highest responses in the "Too sweet" category at 48.8%, while "Too bland" also increased to 27.9%. The "Just right" rating notably decreased to 23.3%. Interestingly, none of the participants rated the modified recipe as "Too salty".

Graph 2: Taste Feedback of the Original Recipe



Graph 3: Taste Feedback of the Modified Recipe



BEANSPROUTS WITH TOFU AND EGGS

Flavor and crunchiness are the two elements of this dish. It is also very healthy and quick to make.

DIRECTION

1. Slice tofu into pieces about 1cm thick. In a large wok, add 3 tablespoons of cooking oil and fry tofu carefully until it turns a little brown, then remove from the wok and put aside.
2. Beat the eggs and fry them in the same wok, then cut them about the same size as the tofu.
3. Wash the Chinese chive flowers, cut off about 2-3 cm of the hard lower stem, and then cut the rest into 2-3 cm lengths.
4. Wash the bean sprouts and drain the water as much as possible. Peel and finely chop the garlic.
5. In the same wok on medium heat, sauté the garlic with the leftover oil until it turns a little brown. Add the tofu and eggs and stir in carefully. Add oyster sauce, soy sauce and sugar, and stir to let the tofu and eggs absorb the seasoning
6. Add chives and bean sprouts over high heat and stir well for 1-2 mins, then turn the heat off. Avoid cooking for too long because it is important to keep the vegetables somewhat fresh and crunchy.

INGREDIENTS

5 pieces of tofu

5 eggs

500 g Chinese chive flowers

1kg beansprouts

10 cloves garlic

1 tsp palm sugar

3 tbsp soy sauce

2 tbsp oyster sauce

3 tbsp cooking oil

Serving size: 6

Preparation Time: 10 mins

Cooking Time: 5 mins

Analysis Results
Original Recipe

INGREDIENTS

1. Beansprout. mung bean. raw 1000g
2. Chive Chinese, leaves, raw 500g
3. Egg, duck, whole, raw 250g
4. Garlic, fresh-ap 30g
5. Sauce, oyster 30g
6. Sauce, soybean, light 45g
7. Soybean oil 45g
8. Sugar, palm 10g
9. Tofu 625g

NOTES

- The amount of ingredients was sourced from the Nham book recipe

NUTRITION FACTS

Serving Size	**422.5 g**	
Energy	**355.5 Kcal**	
Carbohydrate	17g	-
Fat*	23.5g	35%
Protein	27.7g	-
Sucrose	2.8g	-
Dietary Fiber	4.8g	-
Added Sugar*	1.7g	6.7%
Sodium*	774mg	38.7%
Iron	9.5mg	-
Calcium	241mg	-
Potassium	422.8mg	-
Magnesium	172.6mg	-
Zinc	2.6mg	-
Vit. B1	0.5mg	-
Vit. B2	0.4mg	-
Niacin	1.3mg	-
Vit. B6	0.3mg	-
Pantothenic acid	0.9mg	-
Folic acid	144.8µg	-
Vit. B12	2.2µg	-
Vit. C	24.4mg	-
Vit. A	132.5RAE	-

Analysis Results
Modified Recipe

INGREDIENTS

1. Beansprout. mung bean. raw 1000g
2. Chive Chinese, leaves, raw 500g
3. Egg, hen, whole, raw 250g
4. Garlic, fresh-ap 30g
5. Sauce, oyster 30g
6. Sauce, soybean, light 30g
7. Soybean oil 45g
8. Sugar, palm 10g
9. Tofu 625g

NOTES

- Adjusted the amount of soybean sauce from 45g to 30g
- Switch duck egg to hen egg

NUTRITION FACTS

Serving Size	**420 g**	
Energy	**339.3 Kcal**	
Carbohydrate	16.9g	-
Fat*	21.9g	32.7%
Protein	27.2g	-
Sucrose	2.7g	-
Dietary Fiber	4.8g	-
Added Sugar*	1.7g	6.7%
Sodium*	595mg	29.7%
Iron	9.2mg	-
Calcium	233.1mg	-
Potassium	417mg	-
Magnesium	172.1mg	-
Zinc	2.5mg	-
Vit. B1	0.5mg	-
Vit. B2	0.4mg	-
Niacin	1.2mg	-
Vit. B6	0.3mg	-
Pantothenic acid	0.9mg	-
Folic acid	143.3µg	-
Vit. B12	0.4µg	-
Vit. C	24.4mg	-
Vit. A	147.9RAE	-

Original Recipe

NUTRITION FACTS

Serving Size	**422.5 g**	
Energy	**355.5 Kcal**	
Carbohydrate	17g	-
Fat*	23.5g	35%
Protein	27.7g	-
Sucrose	2.8g	-
Dietary Fiber	4.8g	-
Added Sugar*	1.7g	6.7%
Sodium*	774mg	38.7%
Iron	9.5mg	-
Calcium	241mg	-
Potassium	422.8mg	-
Magnesium	172.6mg	-
Zinc	2.6mg	-
Vit. B1	0.5mg	-
Vit. B2	0.4mg	-
Niacin	1.3mg	-
Vit. B6	0.3mg	-
Pantothenic acid	0.9mg	-
Folic acid	144.8µg	-
Vit. B12	2.2µg	-
Vit. C	24.4mg	-
Vit. A	132.5RAE	-

Modified Recipe

NUTRITION FACTS

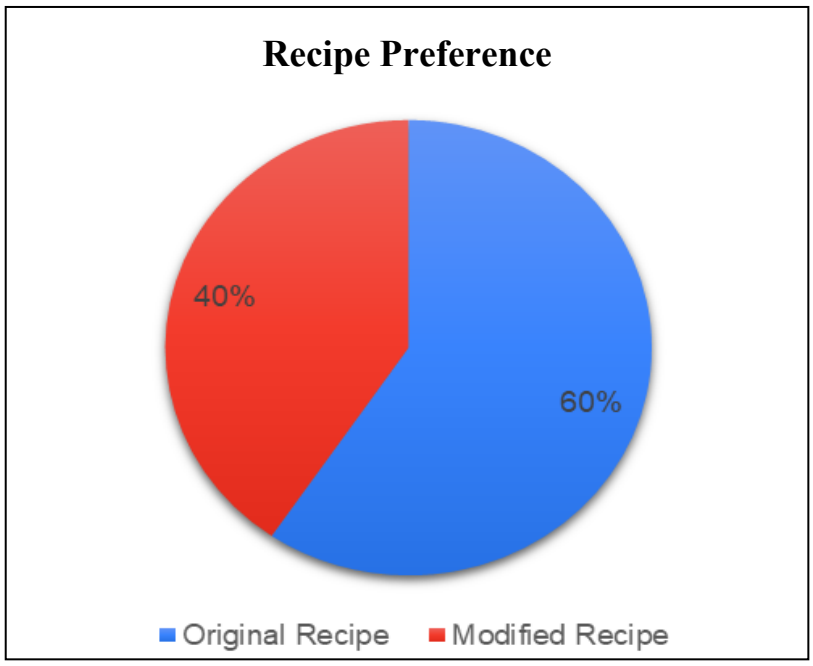
Serving Size	**420 g**	
Energy	**339.3 Kcal**	
Carbohydrate	16.9g	-
Fat*	21.9g	32.7%
Protein	27.2g	-
Sucrose	2.7g	-
Dietary Fiber	4.8g	-
Added Sugar*	1.7g	6.7%
Sodium*	595mg	29.7%
Iron	9.2mg	-
Calcium	233.1mg	-
Potassium	417mg	-
Magnesium	172.1mg	-
Zinc	2.5mg	-
Vit. B1	0.5mg	-
Vit. B2	0.4mg	-
Niacin	1.2mg	-
Vit. B6	0.3mg	-
Pantothenic acid	0.9mg	-
Folic acid	143.3µg	-
Vit. B12	0.4µg	-
Vit. C	24.4mg	-
Vit. A	147.9RAE	-

NOTES

- The sodium content in the original recipe exceeds the WHO's daily recommendation for a three-meal diet. To align with healthy eating guidelines, the soybean sauce was reduced from 45 g to 30 g, lowering the contribution from 38.7% to 29.7% of the recommended limit.
- The fat content was slightly exceeding the recommendation. The duck eggs were replaced by hen eggs so the fat content change from 35.2% to 32.9%.

A total of 42 participants took part in the tasting survey for our first dish, Beansprouts with Tofu and Eggs, consisting of 21 males and 21 females. The results indicate that 60% preferred the original recipe, while 40% favored the modified version as shown in **Graph 4**.

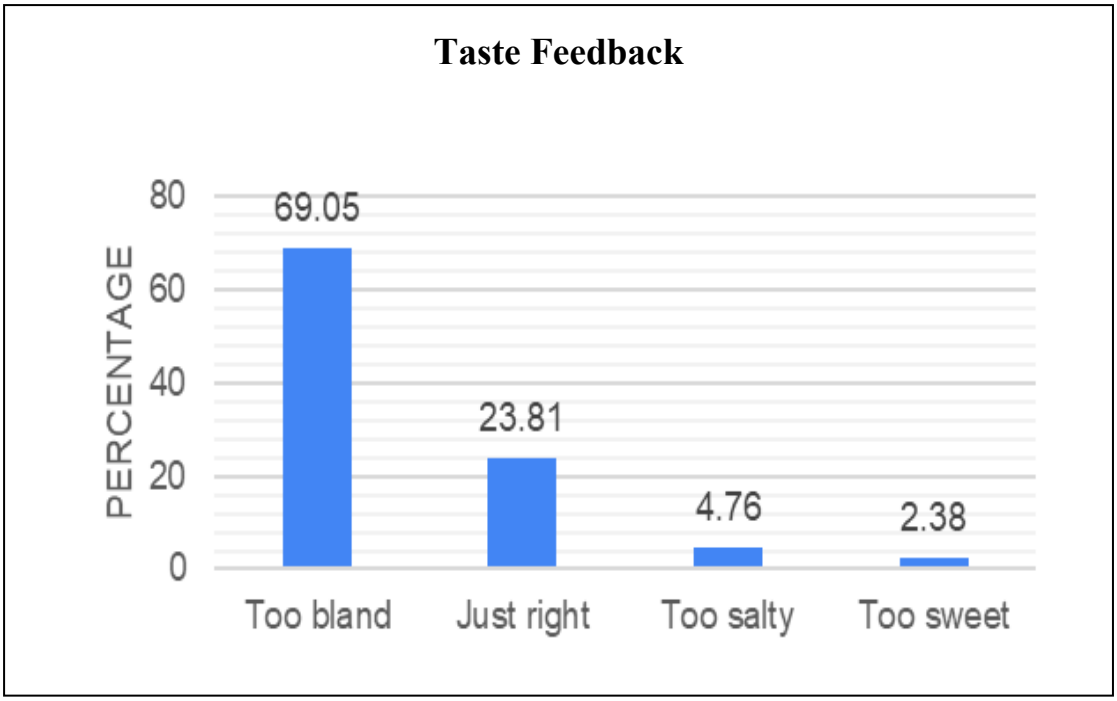
Graph 4: Recipe Preference of Beansprouts with Tofu and Eggs



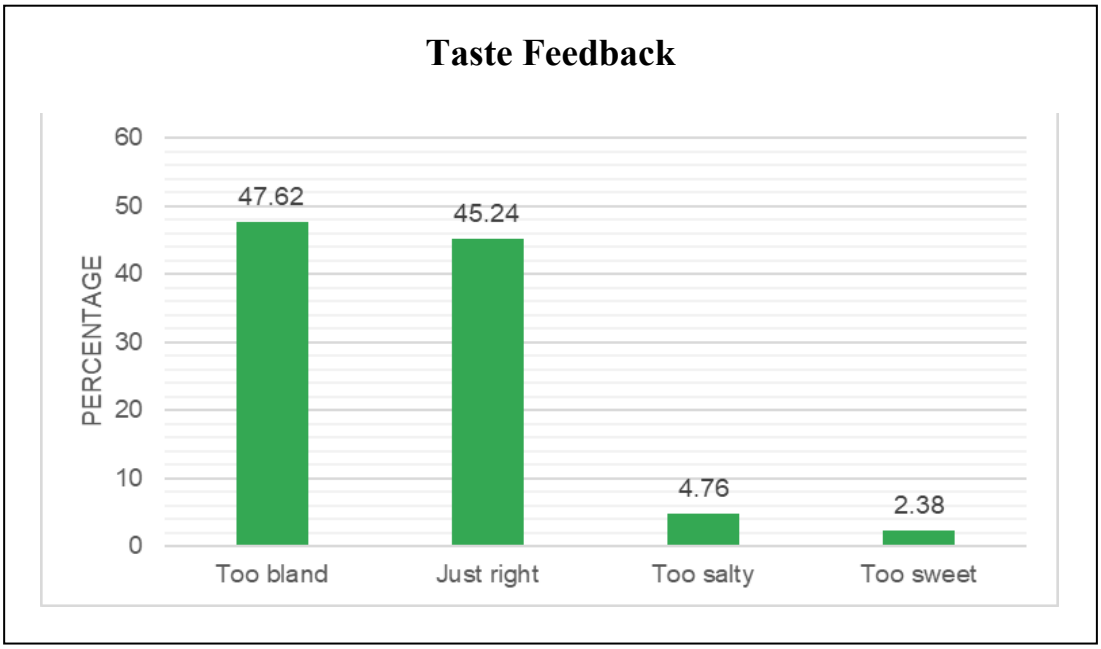
Graphs 5 and 6 show tasting feedback for both recipes across four categories: “Just right” “Too sweet” “Too salty” and “Too bland”. For the original recipe, 69.1% of participants found it “Too bland” while 23.8% considered it “Just right” The remaining responses were much lower, with 4.8% rating it “Too salty” and 2.4% “Too sweet” Overall, the majority of participants perceived the original recipe as too bland.

For the modified recipe, 47.6% of participants found it “Too bland” closely followed by 45.2% who thought it was “Just right” Only 4.8% and 2.4% rated it “Too salty” and “Too sweet” respectively. This indicates that opinions on the modified recipe were almost evenly split between “Too bland” and “Just right” with very few participants finding it either “Too salty” or “Too sweet”.

Graph 5: Taste Feedback of the Original recipe



Graph 6: Taste Feedback of the Modified recipe



SAMLOR BROHOEU

A traditional Khmer Soup made with fish and variety of vegetables. Its bold aroma from lemongrass and fresh herbs gives it a unique, addictive smell and flavor, making it a healthy and beloved comfort dish among Cambodians.

DIRECTION

1. Boiled 3 cups of water, add a teaspoon of salt and fish fillet, and cook for 10 mins. Take the fish out to cool and keep the broth for later. Prepare the vegetables by peeling and cutting pumpkin (2-3 cm cubes), taro (1.5 cm cubes), winter melon (1.5 cm length), and luffa into small pieces.
2. Make a paste with the lemongrass, galangal, turmeric, kaffir lime rind, garlic, and shallots.
3. Pound the cooked fish with the paste until it is well mixed.
4. Add 4 cups of water to the fish broch pot and bring to a boil. Add Prohok, lemongrass and fish paste, and wait until the whole mix boil again. Add taro and pumpkin and cook for 3 mins, until they soften.
5. Add all the seasoning, then add the winter melon and cook for half a minute. Next, add the luffa and give it a good stir. Finally add all the green leaves and stir well one last time before.
6. Turning the heat off.

INGREDIENTS

400g fillet snakehead fish
150g spinach leaves
200g pumpkin
250g taro root
2 small winter melons
150g ivy gourd leaves
3 small luffa gourds
6-8 stalks lemongrass
3-4 thin slices galangal
1 piece turmeric, 2-3cm long
1 thumb-sized kaffir lime rind
5 kaffir lime leaves
10 cloves garlic
5-6 shallots, peeled and thinly sliced
1 tablespoon palm sugar
1 teaspoon salt
1.5 tablespoons fish sauce
50g prohok, no bones
4 cups fresh water

Serving size: 6
Preparation Time: 30mins
Cooking Time: 15mins

Analysis Results
Original Recipe

INGREDIENTS

1. Leaf. amaranth. fresh-ep 150g
2. Pumpkin. raw 200g
3. Taro. raw 250g
4. Gourd. wax 500g
5. Gourd. towel. raw 500g
6. Garlic, fresh-ap 50g
7. Shallot 25g
8. Salt table 5g
9. Ivy gourd, raw 150g
10. Lemongrass 60g
11. Fingerroot/galingale, raw 13g
12. Turmeric 5g
13. Leech lime/kaffir lime, peels 3g
14. Fish, striped snakehead fish, raw 524g
15. Sugar, palm 8g
16. Fish sauce grade I 23g
17. Fish paste, fermented, average 50g

NOTES

- The amount of ingredients was sourced from the Nham book recipe

NUTRITION FACTS

Serving Size	**659.3g**	
Energy	**236.3Kcal**	
Carbohydrate	28.9g	-
Fat*	4.3g	6.4%
Protein	23.8g	-
Sucrose	0.9g	-
Dietary Fiber	5.9g	-
Added Sugar*	1.3g	5.3%
Sodium*	1403.6mg	70.2%
Iron	5mg	-
Calcium	153.5mg	-
Potassium	392mg	-
Magnesium	102.9mg	-
Zinc	1.7mg	-
Vit. B1	0.3mg	-
Vit. B2	0.3mg	-
Niacin	2.2mg	-
Vit. B6	0.5mg	-
Pantothenic acid	0.5mg	-
Folic acid	52.3µg	-
Vit. C	32.3mg	-
Vit. A	97.8RAE	-

Analysis Results
Modified Recipe

INGREDIENTS

1. Leaf. amaranth. fresh-ep 150g
2. Pumpkin. raw 200g
3. Taro. raw 250g
4. Gourd. wax 500g
5. Gourd. towel. raw 500g
6. Garlic, fresh-ap 50g
7. Shallot 25g
8. Salt table 5g
9. Ivy gourd, raw 150g
10. Lemongrass 60g
11. Fingerroot/galingale, raw 13g
12. Turmeric 5g
13. Leech lime/kaffir lime, peels 3g
14. Fish, striped snakehead fish, raw 524g
15. Sugar, palm 8g
16. Fish sauce grade I 23g
17. Fish paste, fermented, average 50g

NOTES

Adjusted the amount:

- Salt from 5g to 2g
- Fish sauce from 23g to 20g

NUTRITION FACTS

Serving Size	**651.7g**	
Energy	**227.6Kcal**	
Carbohydrate	27.9g	-
Fat*	4g	6%
Protein	23.2g	-
Sucrose	0.9g	-
Dietary Fiber	5.8g	-
Added Sugar*	1.3g	5.3%
Sodium*	579.5mg	29%
Iron	3.6mg	-
Calcium	140.2mg	-
Potassium	389.6mg	-
Magnesium	101.7mg	-
Zinc	1.7mg	-
Vit. B1	0.3mg	-
Vit. B2	0.3mg	-
Niacin	2.2mg	-
Vit. B6	0.5mg	-
Pantothenic acid	0.5mg	-
Folic acid	52.3µg	-
Vit. C	32.3mg	-
Vit. A	97.8RAE	-

Original Recipe

NUTRITION FACTS

Serving Size	**659.3g**	
Energy	**236.3Kcal**	
Carbohydrate	28.9g	-
Fat*	4.3g	6.4%
Protein	23.8g	-
Sucrose	0.9g	-
Dietary Fiber	5.9g	-
Added Sugar*	1.3g	5.3%
Sodium*	1403.6mg	70.2%
Iron	5mg	-
Calcium	153.5mg	-
Potassium	392mg	-
Magnesium	102.9mg	-
Zinc	1.7mg	-
Vit. B1	0.3mg	-
Vit. B2	0.3mg	-
Niacin	2.2mg	-
Vit. B6	0.5mg	-
Pantothenic acid	0.5mg	-
Folic acid	52.3µg	-
Vit. C	32.3mg	-
Vit. A	97.8RAE	-

Modified Recipe

NUTRITION FACTS

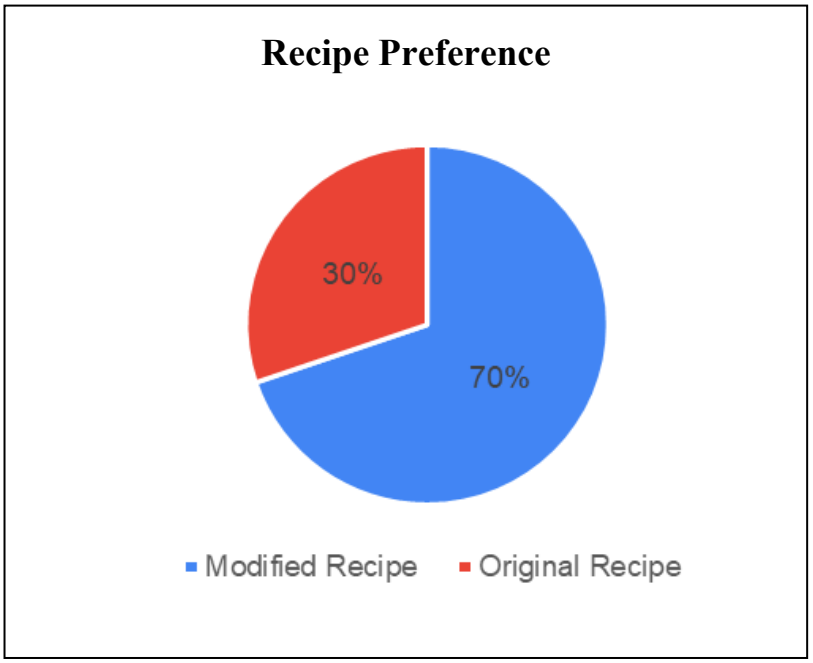
Serving Size	**651.7g**	
Energy	**227.6Kcal**	
Carbohydrate	27.9g	-
Fat*	4g	6%
Protein	23.2g	-
Sucrose	0.9g	-
Dietary Fiber	5.8g	-
Added Sugar*	1.3g	5.3%
Sodium*	579.5mg	29%
Iron	3.6mg	-
Calcium	140.2mg	-
Potassium	389.6mg	-
Magnesium	101.7mg	-
Zinc	1.7mg	-
Vit. B1	0.3mg	-
Vit. B2	0.3mg	-
Niacin	2.2mg	-
Vit. B6	0.5mg	-
Pantothenic acid	0.5mg	-
Folic acid	52.3µg	-
Vit. C	32.3mg	-
Vit. A	97.8RAE	-

NOTES

- To meet the WHO's daily recommendation, the original recipe was modified to reduce its sodium content. The amount of salt, fish sauce, and fish paste were lowered, bringing the dish's contribution to the recommended daily limit down from 70.2% to 29%.
- No modifications were made to the added sugar and fat content as they were already within the recommended limits.

A total of 43 participants took part in the tasting survey for our first dish, Samlor Broheu, consisting of 23 males and 20 females. The results indicate that 70% preferred the original recipe, while 30% favored the modified version as shown in **Graph 7**.

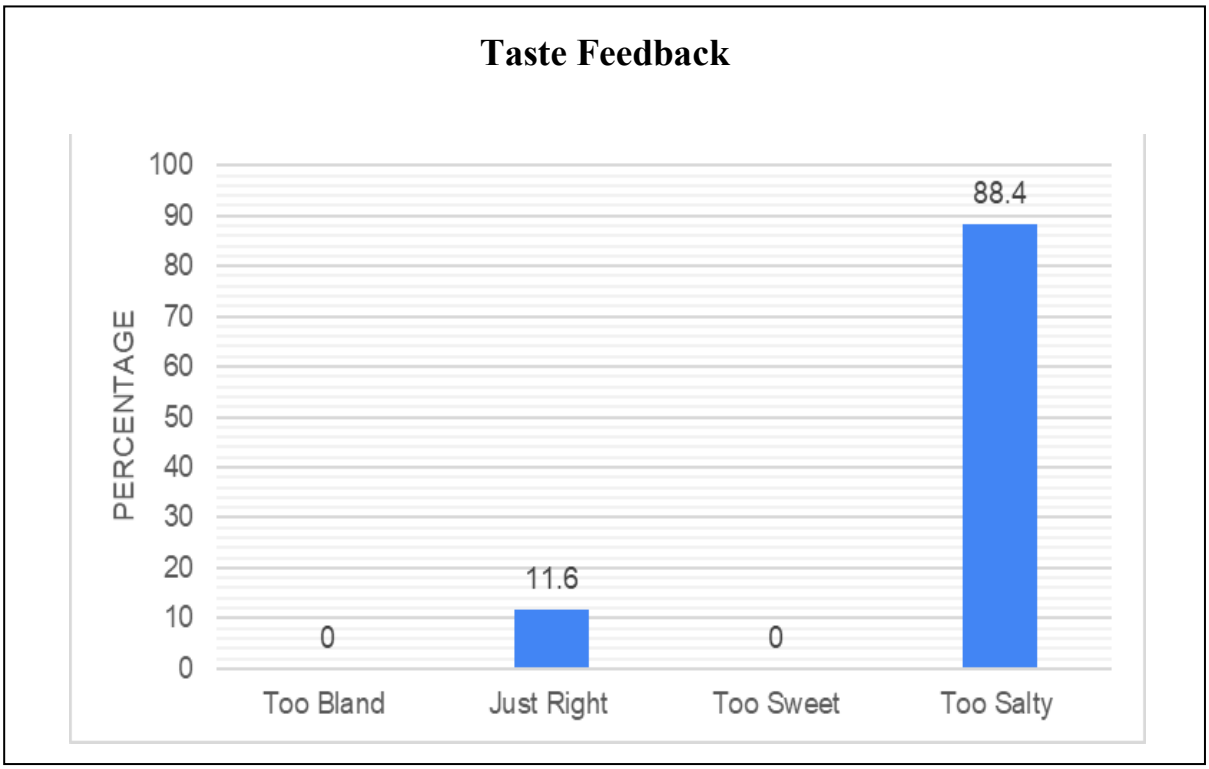
Graph 7: Recipe Preference of Samlor Brohe



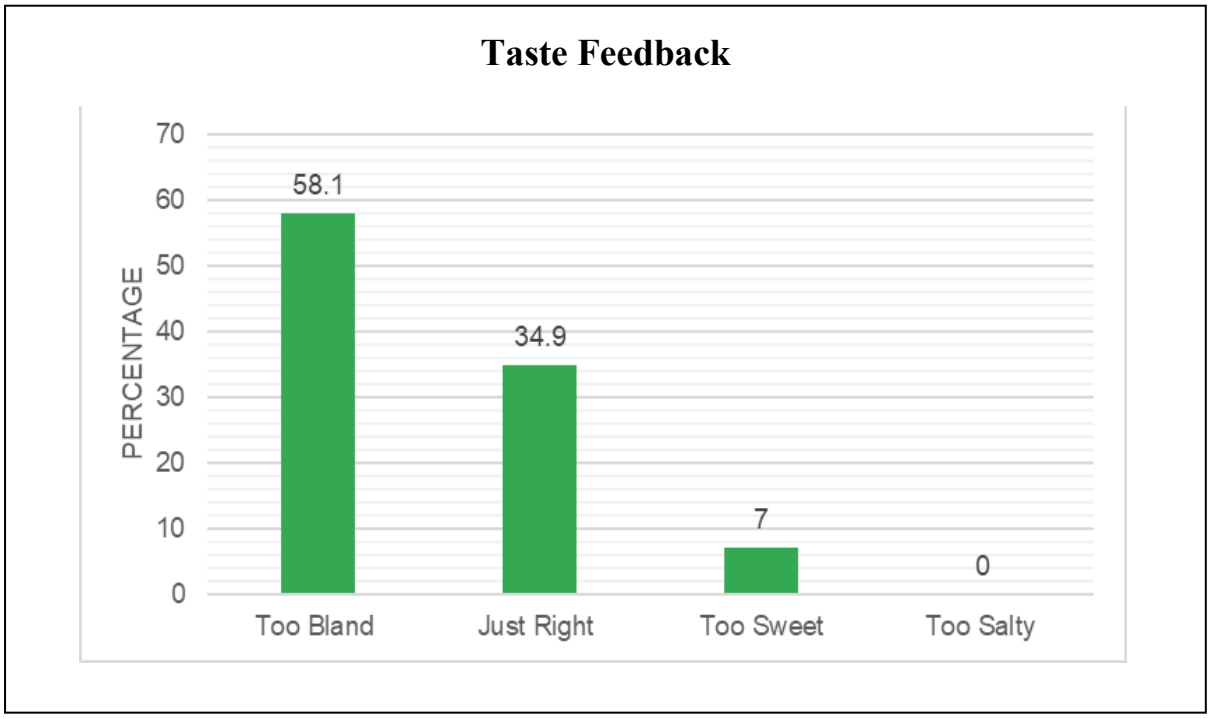
Graphs 8 and 9 show tasting feedback for both recipes across four categories: “Just right” “Too sweet” “Too salty” and “Too bland”. For the original recipe, the majority of participants (88.4%) perceived it as “Too salty” while only 11.6% considered the flavor to be “Just right”

In contrast, feedback for the modified recipe leaned toward it being under-seasoned, with 58.1% of respondents rating it as “Too bland” Approximately, one-third of participants (34.9%) were satisfied with the flavor, selecting “Just right” and a small minority (7%) found it “Too sweet”.

Graph 8: Taste Feedback of the Original Recipe



Graph 9: Taste Feedback of the Modified Recipe



BRAISED PORK WITH QUAIL EGGS

Known for its balance of sweetness and salty flavors, a well-made Khor has a rich gravy that pairs perfectly with steamed rice.

DIRECTION

1. Cut the pork belly into strips about 2-3 cm in width, then chop into pieces about 2-3 cm.
2. Cook the quail eggs in boiling water for 10 minutes and then remove their shells.
3. Peel and finely chop the garlic.
4. In a large pot on low heat, caramelize the palm sugar until it becomes dark in color and starts to give off smoke. Add garlic, salt, soy sauce, oyster sauce, pepper, and pork and mix well. Continue to cook for 10 minutes, stirring often.
5. Add 3 cups of water and bring to a boil. Put the eggs in and continue cooking for 20 minutes without the lid. To serve, put steamed rice on a plate or in a bowl and pour the khor over the top.

INGREDIENTS

1.5kg pork belly

500g quail eggs

10 cloves garlic

2.5 tbsp palm sugar

2 tsp salt

2 tsp ground pepper

3 tbsp soy sauce

2 tbsp oyster sauce

Serving size: 6

Preparation Time: 20mins

Cooking Time: 30mins

Analysis Results
Original Recipe

INGREDIENTS:

1. Quail egg 500g
2. Garlic. fresh-ap 50g
3. Pepper. black. spice 10g
4. Salt table 10g
5. Pork, belly, raw 1500g
6. Sugar palm 37.5g
7. Sauce, soybean, dark 45.0g
8. Sauce, oyster 30g

NOTES

- ❖ The amount of ingredients was sourced from the Nham book recipe

NUTRITION FACTS

Serving Size	**483.8g**	
Energy	**1109.7Kcal**	
Carbohydrate	12.2g	-
Fat*	96.9g	144.7%
Protein	46.9g	-
Sucrose	4.7g	-
Dietary Fiber	0.8g	-
Added Sugar*	6.3g	25%
Sodium*	1015.5mg	50.8%
Iron	5.1mg	-
Calcium	79.1mg	-
Potassium	906.3mg	-
Magnesium	20.3mg	-
Zinc	1.5mg	-
Vit. B1	0.9mg	-
Vit. B2	0.5mg	-
Niacin	6.3mg	-
Vit. B6	0.3mg	-
Pantothenic acid	1.1mg	-
Folic acid	71.4µg	-
Vit.B12	4.5µg	-
Vit. C	1.4mg	-
Vit. A	5RAE	-

Analysis Results
Modified Recipe

INGREDIENTS

1. Egg. quail 320g
2. Garlic. fresh-ap 50g
3. Pepper. black. spice 10g
4. Salt table 3g
5. Pork, belly, raw 150g
6. Pork, tenderloin, raw 1100g
7. Sugar palm 37.5g
8. Sauce, soybean, dark 45.0g
9. Sauce, oyster 30g

NOTES

Adjusted the amount:

- Quail eggs from 500g to 320g Pork belly from 1500g to 150g
- Use pork tenderloin 1100g Salt

NUTRITION FACTS

Serving Size	**410.9g**	
Energy	**437.2kcal**	
Carbohydrate	8.8g	-
Fat*	22g	32.9%
Protein	51g	-
Sucrose	4.5g	-
Dietary Fiber	0.8g	-
Added Sugar*	6.3g	25%
Sodium*	628.1mg	31.4%
Iron	4.7mg	-
Calcium	57.4mg	-
Potassium	816.3mg	-
Magnesium	60.1mg	-
Zinc	2.8mg	-
Vit. B1	2.6mg	-
Vit. B2	0.9mg	-
Niacin	8.9mg	-
Vit. B6	1.6mg	-
Pantothenic acid	0.7mg	-
Folic acid	47.4µg	-
Vit.B12	3.9µg	-
Vit. C	1.4mg	-
Vit. A	1.2RAE	-

Original Recipe

NUTRITION FACTS

Serving Size	**483.8g**	
Energy	**1109.7Kcal**	
Carbohydrate	12.2g	-
Fat*	96.9g	144.7%
Protein	46.9g	-
Sucrose	4.7g	-
Dietary Fiber	0.8g	-
Added Sugar*	6.3g	25%
Sodium*	1015.5mg	50.8%
Iron	5.1mg	-
Calcium	79.1mg	-
Potassium	906.3mg	-
Magnesium	20.3mg	-
Zinc	1.5mg	-
Vit. B1	0.9mg	-
Vit. B2	0.5mg	-
Niacin	6.3mg	-
Vit. B6	0.3mg	-
Pantothenic acid	1.1mg	-
Folic acid	71.4µg	-
Vit.B12	4.5µg	-
Vit. C	1.4mg	-
Vit. A	5RAE	-

Modified Recipe

NUTRITION FACTS

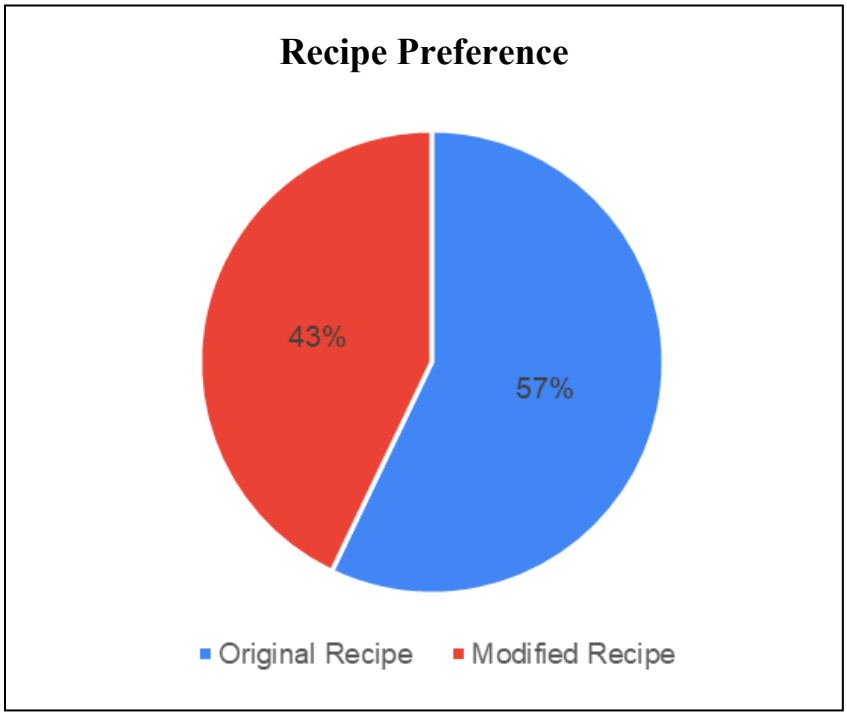
Serving Size	**410.9g**	
Energy	**437.2kcal**	
Carbohydrate	8.8g	-
Fat*	22g	32.9%
Protein	51g	-
Sucrose	4.5g	-
Dietary Fiber	0.8g	-
Added Sugar*	6.3g	25%
Sodium*	628.1mg	31.4%
Iron	4.7mg	-
Calcium	57.4mg	-
Potassium	816.3mg	-
Magnesium	60.1mg	-
Zinc	2.8mg	-
Vit. B1	2.6mg	-
Vit. B2	0.9mg	-
Niacin	8.9mg	-
Vit. B6	1.6mg	-
Pantothenic acid	0.7mg	-
Folic acid	47.4µg	-
Vit.B12	3.9µg	-
Vit. C	1.4mg	-
Vit. A	1.2RAE	-

NOTES

- The fat content in the original recipe exceeds the WHO's daily recommendation for a three-meal diet. To align with healthy eating guidelines, pork belly was reduced from 1500g to 150g and added pork tenderloin for 1100g instead and the amount of quail eggs also reduced from 500g to 320g which lowering the contribution of fat from 144.7% to 32.9% of the recommended limit.
- To meet the recommended limit, the amount of salt was reduced from 10 g to 3 g.

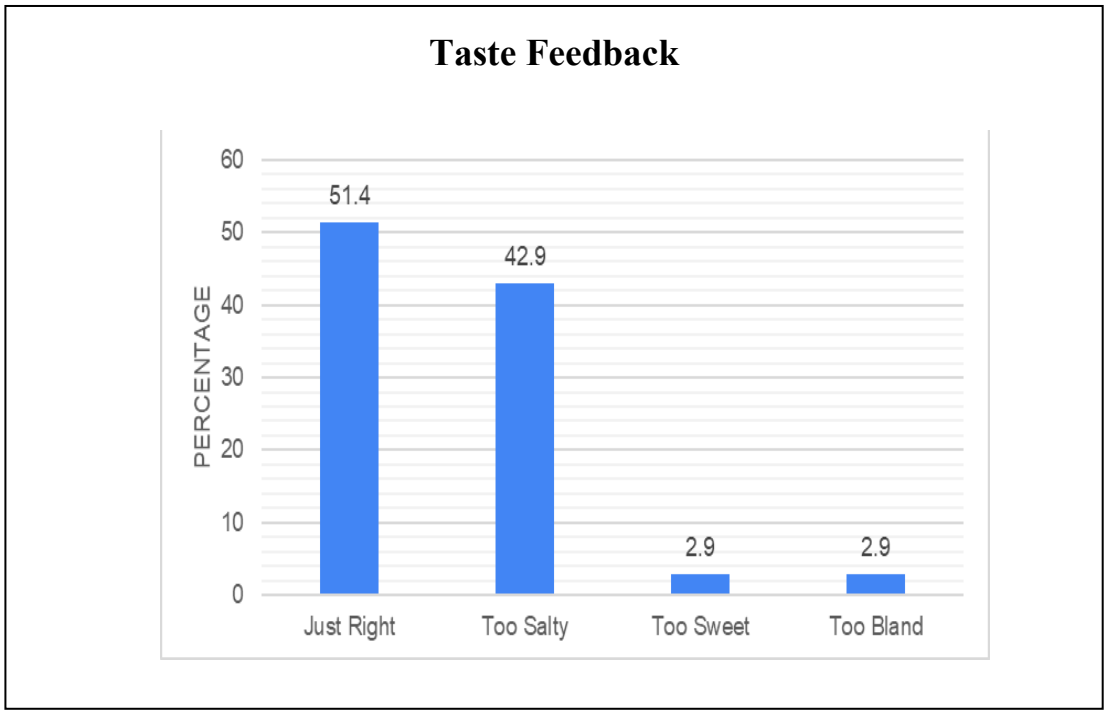
A total of 35 participants took part in the tasting survey for our first dish, Braised Pork with Quail eggs, consisting of 16 males and 19 females. The results indicated that 57% preferred the original recipe, while 43% favored the modified version as shown in **Graph 10**.

Graph 10: Recipe Preference for Braised Pork with Quail eggs

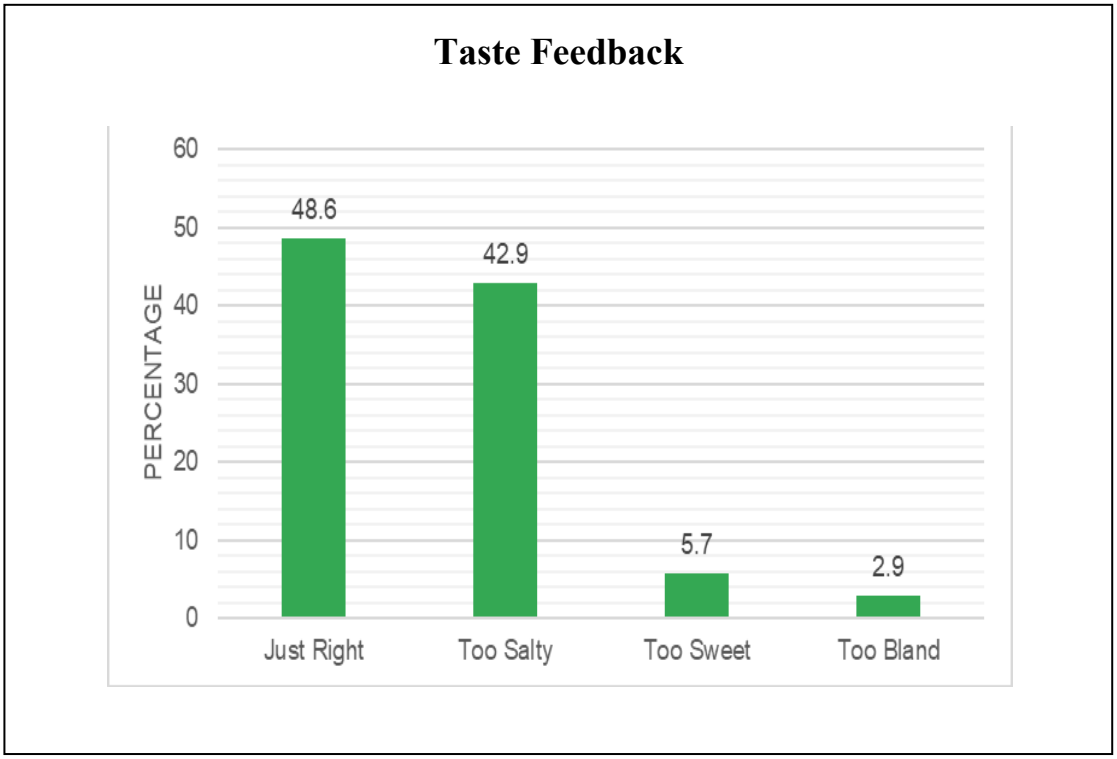


Graphs 11 and 12 present tasting feedback for both recipes across four categories: "Just right," "Too sweet," "Too salty" and "Too bland" For the original recipe, 51.4% of respondents found the flavor "Just right," indicating that the base recipe was well-received by more than half of the participants. However, 42.9% felt the dish was "Too salty". For the modified recipe, 48.6% of participants also rated the flavor as "Just right" showing strong acceptance of the changes. Yet, 42.9% still found the dish "Too salty" suggesting that salt levels remain a key concern.

Graph 11: Taste Feedback of the Original Recipe



Graph 3: Taste Feedback of the Modified Recipe



POSTER 1

NATIONAL INSTITUTE OF PUBLIC HEALTH
SCHOOL OF PUBLIC HEALTH

SHRIMP LIME SOUP

Nutrition Facts

Amount Per Serving

482g – 480.3g

Nutrient	Original Recipe*		Modified Recipe (WHO recommendation)	
	Amount	%	Amount	%
Energy	163.9 Kcal	-	163.9 Kcal	
Carbohydrate Sucrose Dietary Fiber	5.3g 1.1g 0.9g	-	5.3g 1.1g 0.9g	-
Protein	29.7g	-	29.7g	-
Added Sugar**	2g	8%	2g	8%
Fat**	2.4g	3.5%	2.4g	3.5%
Sodium**	**918.6mg**	**45.9%**	**419.3mg**	**21%**

- *Adapted from Nham Cook Book
- **Based on 2000 Kcal diet with added sugar, fat and sodium per day recommended by World Health Organization
- ***RAE: Retinol Activity Equivalents

Nutrient	Original Recipe	Modified Recipe
	Amount	Amount
Iron	5.1mg	5.1mg
Calcium	63.1mg	63.1mg
Potasium	226.8mg	226.8mg
Magnesium	45.6mg	45.6mg
Zinc	2.4mg	2.4mg
Vit. B1	0.1mg	0.1mg
Vit. B2	0.1mg	0.1mg
Niacin	0.3mg	0.3mg
Vit. B6	0.2mg	0.2mg
Pantothenic acid	1.3mg	1.3mg
Folic acid eq.	0.5µg	0.5µg
Vit. B12	2.0µg	2.0µg
Vit. C	10.3mg	10.3mg
Vit. A	9.4RAE***	9.4RAE***

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Date: March 2025

POSTER 2

NATIONAL INSTITUTE OF PUBLIC HEALTH
SCHOOL OF PUBLIC HEALTH

BEANSPROUTS WITH TOFU AND EGGS

Nutrition Facts

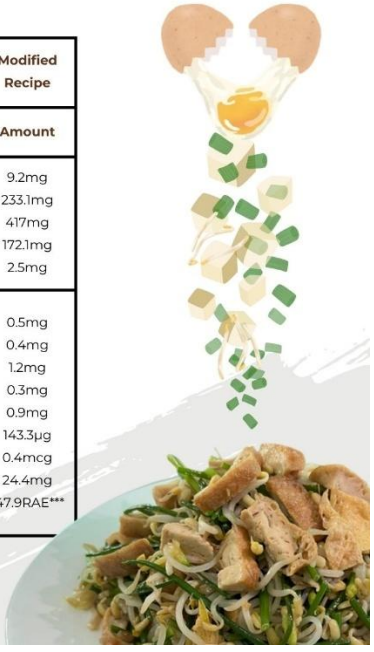
Amount Per Serving

422.5g

Nutrient	Original Recipe*		Modified Recipe (WHO recommendation)	
	Amount	%	Amount	%
Energy	355.3Kcal	-	339.3Kcal	-
Carbohydrate Sucrose Dietary Fiber	17g 2.8g 4.8g	-	16.9g 2.7g 4.8g	-
Protein	27.7g	-	27.2g	-
Added Sugar**	1.7g	6.7%	1.7g	6.7%
Fat**	**23.5g**	**35.0%**	**21.9g**	**32.7%**
Sodium**	**774mg**	**38.7%**	**595mg**	**29.7%**

- *Adapted from Nham Cook Book.
- **Based on 2000 kcal diet with added values of sugar, fat, and sodium per day recommended by World Health Organization.
- ***RAE: Retinol Activity Equivalents

Nutrient	Original Recipe	Modified Recipe
	Amount	Amount
Iron	9.5mg	9.2mg
Calcium	241mg	233.1mg
Potasium	422.8mg	417mg
Magnesium	172.6mg	172.1mg
Zinc	2.6mg	2.5mg
Vit. B1	0.5mg	0.5mg
Vit. B2	0.5mg	0.4mg
Niacin	1.3mg	1.2mg
Vit. B6	0.3mg	0.3mg
Pantothenic acid	0.9mg	0.9mg
Folic acid eq.	144.8µg	143.3µg
Vit. B12	2.2mcg	0.4mcg
Vit. C	24.4mg	24.4mg
Vit. A	132.5RAE***	147.9RAE***



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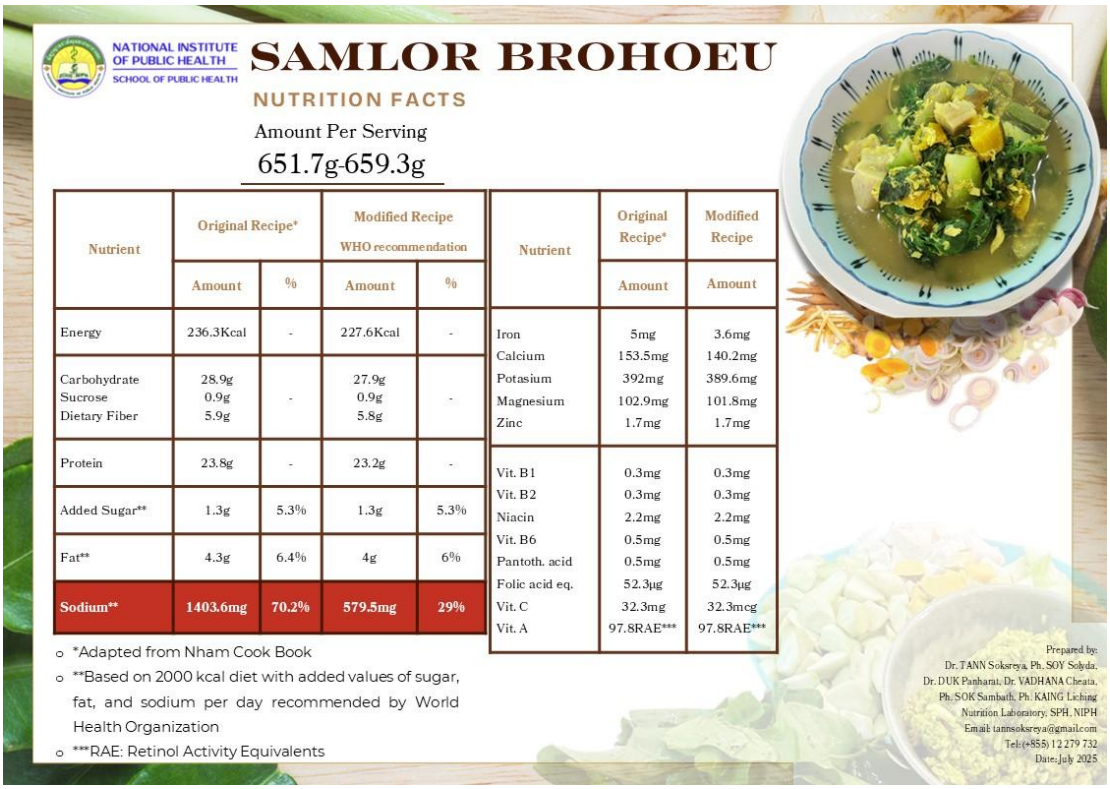
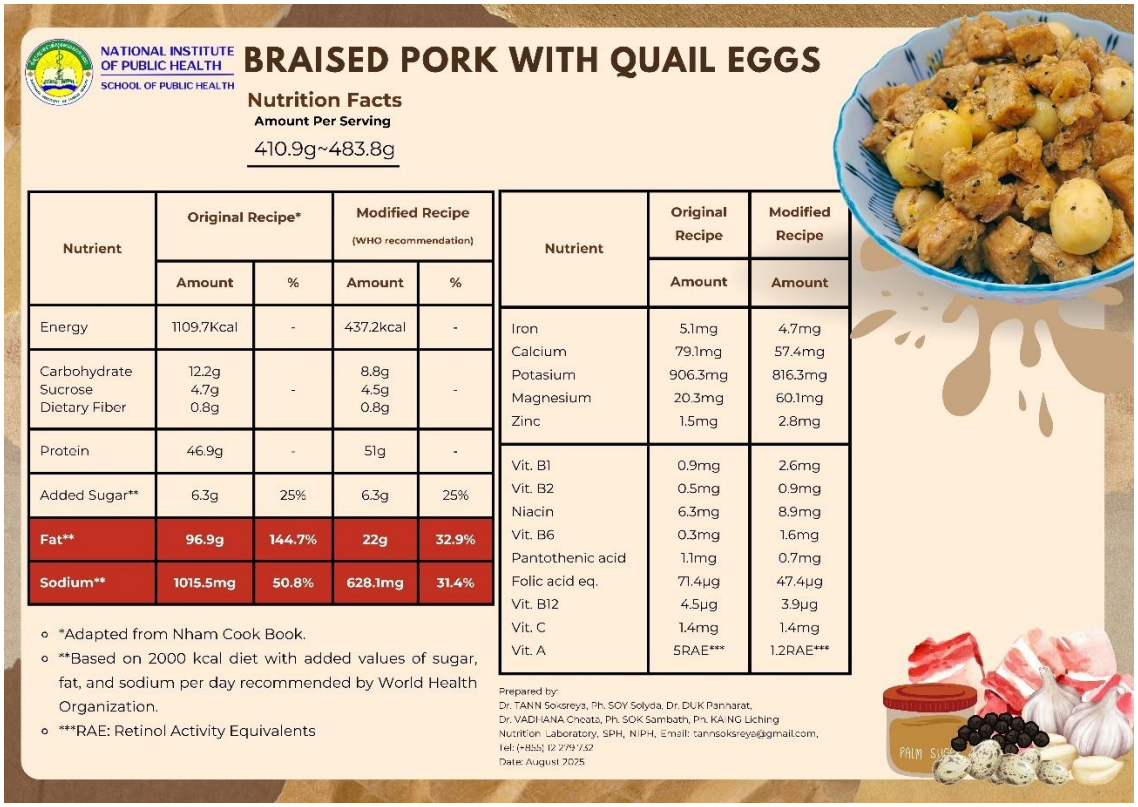
POSTER 3



POSTER 4



ACTIVITIES

FEBRUARY 23, 2025

MAY 11, 2025

JUNE 29, 2025

AUGUST 10, 2025

This concludes Part II of the Cambodian Traditional Cookbook with the completion of the nutritional analysis of the original and modified recipes and supplementary contents.

For readers who are interested in more recipes may refer to **Part I**, which feature the following dished:

- Beef Lok Lak
- Banana Flower with Chicken breast Salad
- Stir-fried Chicken with Ginger
- Kako Soup
- Steamed Layer Cake

Scan the QR code below to access Cambodian Traditional Cookbook **Part I**

Thank you.