

# **Sustainable Production and Consumption: A Case Study on Myanmar Sticky Rice Snack (Kaw Poke)**

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## **Abstract**

Economic is a social science concerned chiefly with description and analysis of the production, distribution and consumption of goods and services. If economic, production and consumption is sustainable, then the environment, employees, communities, and organizations all benefits. These conditions can lead, always in the long term, and often in the short term, to more economically viable and productive enterprises. Sustainable consumption is the use of products and services in a way that minimizes the impact on the environment so that human needs can be met not only in the present but also for future generation. This paper tries to analyse the sustainable production and consumptions of Myanmar sticky rice snack (Kaw Poke) in Kyaukme by using SWOT Analysis. The results show clearly the advantages and disadvantages of production and consumption of Kaw Poke. Keywords: consumption, environment, impacts, production, sustainable

## **Introduction**

Myanmar has got varieties of snacks; Burmese Semolina Cake (Sanwin Makin), Bein Mont, Myanmar Sticky Rice Snack (Kaw poke) etc. depending on the region or ethnic groups. Many Shan people have made and eaten Myanmar Sticky Rice Snack (Kaw Poke) in many years ago. The preparation of this savoury snack or Kaw Poke is an activity when new straws are cultivated in this time and Shan people made Kaw Poke at home. Later they made commercial as Shan traditional snack.

## **The Study Area**

Kyaukme, the study area is a town in Northern Shan State of Myanmar. It is situated on the Mandalay-Lashio road, after Pyin Oo Lwin and Nawngkhio, and before Hsipaw, on what is now the Mandalay-Muse Road, part of the Asian Highway route. Kyaukme has been, since before British colonial rule and is the main trading centre for tea from Tawngpeng, and the hills around Kyaukme itself, inhabited by the Palaung people. Rice, sticky rice and other crops are grown. Kyaukme is known for its garden produce of all sorts of fresh fruits and vegetables thanks to its temperate and sunny climate. Itinerant markets that travel from place to place, setting up on every fifty days in each small town or village, are typical, although large towns have permanent markets.

## **Aim and Objectives**

Main aim of this paper is to study the sustainable production and consumption of Myanmar sticky rice snack called Kaw Poke. Major objectives are:

- To sustain the heritage of Shan traditional food,
- To reduce the negative impact by traditional Kaw Poke production and consumption on the environment and
- To get environmental, social and economic benefits

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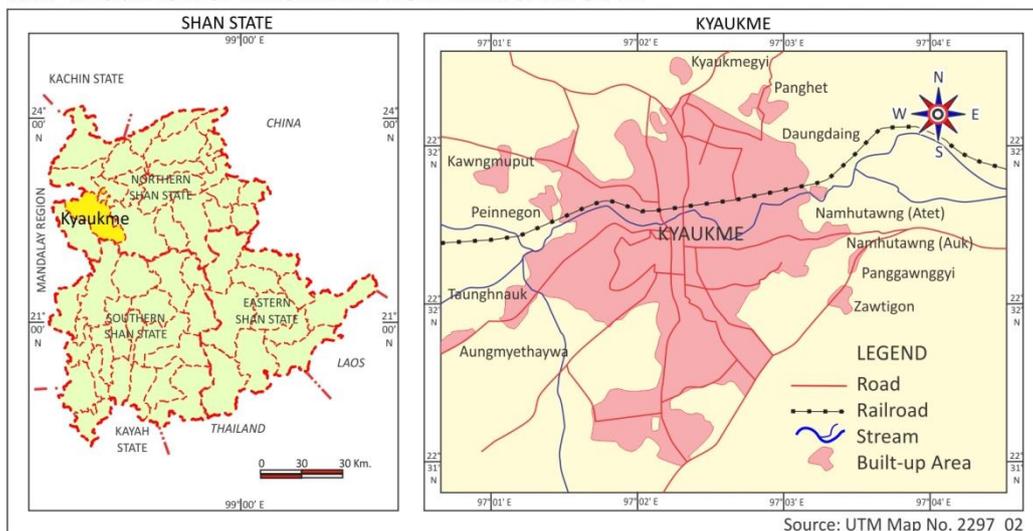
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## Data and Method

This paper is mainly conducted by means of qualitative analysis. The primary data are collected by qualitative methods such as field surveying, interviewing with local people, etc. Qualitative research which is expressed by words is used to understand the concepts, thoughts or experiences of local people who concerned with Kaw Poke production. This type of research enables to gather in-depth insights on topics that are not well understood.

Required data were collected by interviewing with local producers of Kaw Poke and 6 places of Kaw Poke processing were studied. In field works, the authors asked local people with open-ended questions such as: "What is the important problem in the production of Kaw Poke?", "Which capitalization is needed in the production of Kaw Poke?" etc. And then, data collection and analytical works are repeated again and again until the valid result is reached. Finally, to trace the advantages and disadvantages of production and consumption of Kaw Poke is analysed by means of SWOT Analysis.

MAP 1 LOCATION OF KYAUKME IN NORTHERN SHAN STATE



## Qualitative Analysis on Sustainable Production and Consumption of the Kaw Poke

Black sticky rice, white sticky rice, sesame seeds, edible oil, salt, leaf of arrow root and thin strings which made from bamboo all are the essential materials or capital goods for Kaw Poke production. Of these, black and white sticky rice, Shan sesame seeds, edible oil and salt are essential for making Kaw Poke.

Leaf blade and thin string are used for packing Kaw Poke.

First step, black and white sticky rice are washed by water and are cooked. And then they are milled after mixing with sesame seeds, oil and salt about half an hour.

In this snack, white sticky rice and sesame seeds are the main raw materials and black sticky rice is used just for the colour. In Kaw Poke snack, there is no used chemical and only used the natural paint, black sticky rice.

The processing of Kaw poke is as follows:

1. Black and white sticky rice are washed and soaked by water.
2. They are cooked with Boiler about half an hour.
3. They are pound with sesame seeds, edible oil and salt about half an hour.
4. Kaw Poke is mixed with sesame seeds again and packed with leaf blade of arrowroot and thin string which made from Bamboo.



Black sticky rice



Powdered black sticky rice



White sticky rice



Processing Kaw Poke



Kaw Poke in shop



Kaw Poke Disc at work



Kaw Poke disc at work



Packaged Kaw Poke



Fried Kaw Poke



A Kaw Poke Shop

Photo 1 Traditional sticky rice snack (Kaw Poke)

**Table 1 Cost of Kaw poke Production for 37 kg of Finished Product**

| <b>Capitalization</b>              | <b>Amount</b> | <b>Price</b>       |
|------------------------------------|---------------|--------------------|
| Black Sticky Rice                  | 2 Kilograms   | 1000 Kyats         |
| White Sticky Rice                  | 20 Kilograms  | 9000 Kyats         |
| Shan Sesame Seed                   | 2 Kilograms   | 3500 Kyats         |
| Oil                                | 1 Kilograms   | 4500 Kyats         |
| Salt                               | 1.6 Kilograms | 500 Kyats          |
| Leaf blade of arrow root           | 120 leaves    | 850 Kyats          |
| Thin String which made from Bamboo | 1.6 Kilograms | 800 Kyats          |
| <b>Total</b>                       |               | <b>20150 Kyats</b> |

Source: Field Survey. (Based on 2020 market price)

### **Production Cost**

- If Kaw Poke is processed by the ratio mentioned above, nearly 37 kilograms of Kaw Poke can be getting for sale.
- Marginal cost of one-kilogram package is  $20150/37 =$  nearly 600 Kyats.
- Market price for one-kilogram package in Kyaukme area is 1000 Kyats.
- When one package sold out, producers profit 400 kyats. When all 37 packages sold out, the producers would profit 14,800 Kyats.
- Profits could differ from producers, shopkeepers and shopping malls.

### **Occurrence in Market**

Kaw Poke are distributed around the town (Kyaukme) and all over the country; Yangon, Mandalay, Pyin Oo Lwin, etc. In Kyaukme area, transportation charges are not a specific problem. But for product distribution all over the country, the transportation charges become 2 or 3 times higher than the original price because Kaw Poke can taint easily and the shopkeepers are afraid of market failure so that they commercialized.

## **Findings and Discussions**

In order to trace the advantages and disadvantages of the production and consumptions of Myanmar traditional rice snack namely Kaw poke, SWOT analysis is used as follows.

### **SWOT ANALYSIS**

|   |   |
|---|---|
| <p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>Traditional Foods</li> <li>Needed few labour</li> <li>No chemical impacts</li> <li>Supported to human health</li> <li>Using organic materials</li> </ul> | <p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>Perishable products</li> <li>Limiting physical setting</li> <li>Transportation charges</li> <li>Decreasing quality of products</li> </ul> |
| <p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>Enable to expand market</li> <li>Job opportunity</li> </ul>  | <p><b>THREADS</b></p> <ul style="list-style-type: none"> <li>Disappeared traditional food</li> </ul>  |

## **Strengths**

### **(1) Traditional/Heritage Snack**

Kaw Poke is a traditional snack for Shan people. Shan people have made Kaw Poke till now so that they can sustain their traditional heritage. If Shan people made Kaw Poke continuously, they could keep their tradition.

### **(2) Less Labour Consumption**

In Kaw Poke production, too many labours are not needed because it is cottage industry. And Shan families produce Kaw Poke by themselves and they use machine when they pound the rice.

### **(3) No Dye, No Chemical Impacts**

In traditional Kaw Poke, long-term remedies do not include in making process. Kaw Poke can long last about 4 to 7 days in winter and 1 to 2 or 3 days in summer. But Shan people do not use chemical for long lasting. We all accept the natural shelf-storing life.

### **(4) Good for Health**

Kaw Poke is medicated snack and main ingredients in Kaw Poke are sticky rice and sesame seed. Sticky rice has a texture from a high amylopectin content which is a type of starch. Sticky rice helps slow down digestion and lowers insulin levels. Sesame contains healthy fats and contains fibre, iron, calcium, magnesium and phosphorus that helps boost energy levels.

### **(5) Use Organic Materials for Packing**

When packing Kaw Poke, they use leaf blade of arrow root and thin string which made from bamboo. Because the combination of the smell of Kaw Poke and the smell of leaf blade is very nice, it represents the Shan tradition. By making this, they not only use organic materials but also reduce plastics. "Reducing" is one of the important points of sustainable production and consumption.

## **Weaknesses**

### **(1) Perishability**

Kaw Poke is long lasting 3 to 7 days in winter and 1 to 2 or 3 days in summer. So it is very dangerous factor for shopkeepers and product distributors. On the days when demands decrease, products become over dated and smelled. So if we decrease production, demands could also increase for no reasons. We cannot guess the demand rate in seasons, excluding tourism season. So, the shopkeepers don't get a lot of money. It is the important problem in this enterprise.

### **(2) Limited Physical setting**

Black and white sticky rice and Shan sesame seeds are only grown in the Shan state. In the Shan state, it usually gets rain. When it rains, yields are low. So, the raw materials are rare and we can say raw materials are limited. Nowadays, leaf of arrow roots is rare and the customers don't get enough leaf when they need. The commodity prices are rising highly those times.

### **(3) Transportation Charges**

Nowadays, large numbers of Kaw Poke are distributed throughout the country. But when they distribute their products to another area such as Mandalay, middle portion of Myanmar, transportation charges increase to 2 or 3 times more than the original price. Original price of one package is 1000 Kyats and when we consider including transportation charges, the sale price becomes over 3000kyats (as I mention above). The consumers have to pay too much higher than the price in Shan State, East portion of Myanmar because of transportation and service charges.

#### (4) Decreased Quality

Nowadays, Shan people use machine when they pound the rice because of cottage industry. So, this makes a change in texture and quality of Kaw Poke and market demands become lower than the earlier traditional Kaw Poke.

### **Opportunities**

#### (1) Extend Markets

Nowadays many hotels are serving Kaw Poke for breakfast as a traditional attraction, and many snack shops are selling Kaw Poke for local demands. In tourism season, they emphasized to sell Kaw Poke because many tourists interest it because of being one of major traditional snacks. So Kaw Poke market becomes widely spread now.

#### (2) Job Opportunity

With the development of the production of Shan traditional snack as Kaw poke, local people can more access to job opportunities.

### **Threads**

The question “How to sustain the production and consumption for Myanmar Sticky Rice snack (Kaw Poke)?” is a major thread for traditional food.

To promote their production, some Shan people use machines when they pound the sticky rice to produce Kaw poke. Substitution machine in Kaw poke production may lead to threads for the tradition of hand-made Kaw poke.

A sustainable food system refers to an approach that makes the most of the earth's resources for future generations. Food producers and legislators can work together to make the food system sustainable by following ways:

- (1) Enhancing local consumption
- (2) Waste management
- (3) Consider food's marginal cost
- (4) Avoid additives, pesticides and go organic

Sustainable production and consumption is about “the use of services and related products, which respond to basic needs and brings a better quality of life while minimizing the use of natural resources and toxic materials”. In the Myanmar black sticky rice slice (Kaw-poke), we can sustain raw materials not to be waste when we produce them and should have a care when consumption.

### **Conclusion**

Towards sustainable production and consumption, green economics must be built earlier. Sustainable economics becomes grow while promoting eco-friendly jobs and stronger green economics. Kaw Poke is not only Shan traditional food but also the main snack for Shan people. In Kaw Poke production, Shan people use only natural resources such as sticky rice, sesame in processing and leaf blade in packing etc. They don't use plastics for packing. This is the good point. But it is one fact that we must careful. Shan national race is the second largest group in Myanmar national races. When the population level becomes high, the production and consumption rate will also rise. So that we must careful and sustain the production and consumption of Kaw Poke and invent new technology for the Kaw poke to update and take our tradition to our new generations.

### **Acknowledgements**

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### **Reference**

- (1) Goals 12: responsible consumption and production
- (2) Northern Shan State, Kyaukme (Field Experience)
- (3) Data from local people