## SUPPLEMENTARY MATERIAL

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# Optimizing Local Food Systems for Public Health: Insights from Distribution and Consumption Challenges in East Kalimantan



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# Introductory Questionnaire (Used for the Collection of Basic Data from Pregnant Women, Farmers, or Local Food Traders)

## **Purpose of This Instrument:**

- Dig deeper into the consumption and availability of local food for pregnant women.
- Understand the perceptions of the community, farmers, and traders related to the potential and challenges of local food.
- To know policies and interventions that can support the improvement of food security and nutrition through local food in East Kalimantan.

With this guide, it is hoped that the interview can run more detailed, structured, and in-depth, so that the results of the research will be more comprehensive and informative.

- [A] Demographic Data
  - [1] Respondent Name: (Used for respondent identification and maintaining data personalization)
  - [2] Age: (Current age in years, it is very important to look at relevant nutritional consumption patterns in pregnant women)
  - [3] Address: (Region of residence:
    - city
    - village

- rural or remote areas
- [4] Work: (Primary occupation or livelihood, whether working in the formal or informal sector)
- [5] Final Education:
  - SI
  - JUNIOR
  - SMA
  - Diploma
  - Bachelor
  - >S2
- [6] Socioeconomic Status:
  - Earnings per month: \_(Low, Medium, High)
  - Access to health insurance: \_(Do you have BPJS or other health insurance?)
  - Number of family members: \_(How many people in the household are your dependents?)\_

## [B] Health Conditions and Nutritional Status of Pregnant Women

- [1] Are you currently pregnant?
  - (Yes/No) If so, what pregnancy is this to?
  - First, second, or third trimester?
- [2] What is your current gestational age? \_(Months or weeks of pregnancy)
- [3] Have you ever had any health problems during this pregnancy? (Anemia, chronic lack of energy (KEK), hypertension, gestational diabetes, etc.)
- [4] Do you take supplements or vitamins during pregnancy? \_(Iron, folic acid, calcium, vitamin D,

etc.)

- [5] How do you assess your daily food intake?
  - Do you think it already includes essential nutrients such as: iron, protein, calcium, and vitamin D?
  - How often do you eat protein-rich foods such as fish, meat, eggs, or plant-based foods?
  - Do you feel full and energized every day, or are there days where you feel less energized?
- [C] Consumption Patterns and Food Security
  - [1] What are the main foods you eat during pregnancy? \_(Rice, corn, cassava, fish, meat, vegetables, fruits, etc.)
  - [2] Do you eat local foods in your daily diet? \_(Yes/No)\_If so, mention examples of local foods that you often consume \_(e.g., local vegetables, local fish, local tubers, local fruits) .
  - [3] Do you think your nutritional needs during pregnancy have been met with the available food? (If not, what part do you think is missing? (For example: protein-rich foods like eggs or meat, energy-giving foods like rice or bread, foods with vitamins like fruits, or foods with minerals like green vegetables).)
  - [4] How do you have access to local food? \_(Easy or hard to find? Is it affordable for all walks of life?)
  - [5] Are there any challenges or difficulties in getting nutritious local food? \_(For example, seasonal local food availability, high prices, limited distribution, etc.)\_

#### 2. In-Depth Interview Guide

# (For \*\*Pregnant Women, Farmers/Traders, and Community Leaders\*\*)

- [A] Interview with Pregnant Women
  - [1] Experience during pregnancy:
    - How has your physical condition been since the beginning of pregnancy? \_(Do you find it easier to get tired, nauseous, or face other health problems?)\_
    - Can you tell us about your experience of eating food during pregnancy? \_(What do you usually eat daily, and are there any changes in diet compared to before pregnancy?)
    - Have you ever received nutrition education for pregnant women? (If so, from whom? Health workers, midwives, or other media?)
    - Do you feel that the information you get is sufficient to help you make nutritionrelated decisions during pregnancy? (Is there any information you still need?)
  - [2] Local Food Consumption Patterns:
    - What are the types of local foods you consume during pregnancy? \_(For example, local vegetables or fruits, local

- fish, or local tubers.)
- Why did you choose these foods? \_(Is it for reasons of price, tradition, taste, or other factors?)
- What do you think of the quality of local food available around you? \_(Is it easily accessible and has good enough health benefits for pregnant women?)
- [3] Availability and Accessibility of Local Food:
  - Do you find it easy to access quality local food?\*\* (If not, what are the main challenges? Such as limited availability, high prices, or difficult accessibility?)
  - Are there differences in local food availability between specific seasons?
    \_(Are certain types of local foods only available in certain seasons?)
- [4] Food Preferences and Traditions:
  - Are there any dietary restrictions in local traditions that affect your diet during pregnancy? \_(For example, the prohibition of eating certain fish, or the belief not to eat certain foods while pregnant.)
  - \*\*How does family and environment play an impact on your diet?\*\* \_(Do they support local food consumption or tend to prefer modern/instant food?)
- [B] Interview with Local Food Farmers/Traders
  - [1] Local Food Production:
    - What are the types of local foods that you grow or sell?\* \_(Mention the types and production quantity per season.)\_
    - Has there been a change in demand for local food in recent years? \_(Is it increasing or decreasing? What is the reason?)
    - How do you manage local food production? \_(Is it using traditional or modern methods? Are there any challenges in the production process, such as weather, capital, or labor?)\_
  - [2] The Role of Local Food for Food Security:
    - What do you think is the role of local food in supporting food security in this region? \_(Can local food be a better alternative to commercial products from outside the region?)
    - Do you get support from the government or the community in developing local food? \_(Assistance in the form of training, counseling, or access to the market?)\_
  - [3] Availability and Demand:
    - What is the demand for local food from consumers, especially pregnant women?
      \_(Is there an upward or downward trend?)
    - Are local food prices stable or change frequently? \_(What are the factors that affect price changes?)\_
- [C] Interviews with Community Leaders

#### [1] Views on Local Food:

- What is the public's perception of the importance of local food for the health of pregnant women? \_(Are the community aware of the nutritional benefits of local food?)
- Are there any traditions or customs of the community regarding the consumption of local food during pregnancy? \_(For example, special foods that should be consumed by pregnant women for fetal health.)

### [2] Nutrition Interventions and Support:

- Are there any government or nongovernmental programs that encourage the use of local food for pregnant women? \_(For example, health campaigns or local food giving as social assistance.)
- What do you think can be done to increase the use of local food in supporting the nutritional security of pregnant women? \_(What is the role of society and government in this?)\_

#### **Interview Conclusion:**

## Is there anything else you would like to convey regarding the use of local food and the nutritional security of pregnant women?

(For example, suggestions for government programs, expectations from the community, or unanswered challenges.)

#### **Focus Group Discussion (FGD) Guide**

Involving Officers from the Health Office, the Department of Food, Food Crops, and Horticultural Crops, the Department of Fisheries and Marine Affairs, the Regional Planning and Research Agency

## The objectives of this FGD:

- [1] Identify local types of food and their potential for nutritional fulfillment of pregnant women.
- [2] Understand the implementation of government policies that support the use of local food.
- [3] Exploring challenges and obstacles in the use of local food from various aspects.
- [4] Formulate policy recommendations and strategies to improve access to and consumption of local food in East Kalimantan.

With this more detailed FGD guide, it is hoped that the data collected can provide a comprehensive picture of the potential of local food in the supporting food security, nutrition, and health of pregnant women in East Kalimantan.

### [A] The Potential of Local Food

- [1] Identify Local Food Types
  - [a] What are the types of local foods available in the East Kalimantan region?
  - [b] Can you explain the characteristics of

- each of these types of local foods? (e.g. nutritional content, availability season, cultivation method, etc.)
- [c] Is there a local food that has special cultural value for the local community?

#### [2] Utilizing Local Food

- [a] How is the use of local food in the daily lives of the people of East Kalimantan?
- [b] Do people in general consume this local food on a regular basis, or only on certain occasions?
- [c] What is the role of local food in the diet of pregnant women in this region? Is there a difference in local food consumption between the group of pregnant women and the general public?

#### [3] Perception of Local Food

- [a] How is the perception of local food compared to commercial food?
- [b] Are there cultural constraints or habits that affect the consumption of local food by pregnant women?
- [c] Do people believe that local food can provide better health benefits than commercial food?
- [4] The Potential of Local Food in Nutritional Fulfillment.
  - [a] How do you see the potential of local foods in meeting the nutritional needs of pregnant women, especially for essential nutrients such as iron, folic acid, protein, and calcium?
  - [b] Are there any types of local foods that are proven to have nutritional content that can help prevent malnutrition in pregnant women? If so, what are some examples?
  - [c] How is the accessibility of this local food? Is it widely available and easily available to pregnant women, especially in rural areas?

# [B] Policy and Implementation

- [1] Local Food Policy
  - [a] Do the provincial or district governments have special policies that support the use of local food to improve the nutrition of pregnant women?
  - [b] Are there specific programs designed to promote local foods as part of a pregnant woman's nutrition strategy?
  - [c] Is this policy in line with the national strategy related to food security and nutrition?
- [2] Policy Implementation in the Field
  - [a] How is the implementation of policies related to the use of local food in this region? Are there any challenges in implementing it in the field?
  - [b] Do health workers, such as midwives and health center officers, actively advocate the consumption of local food to pregnant

women in their counseling?

[c] What is the level of public acceptance of this policy? Do people feel that the policy is relevant to their needs?

## [3] Inter-Agency Collaboration

- [a] What is the form of coordination between the Health Office and the Food Security Office in promoting and increasing the use of local food?
- [b] Is there any involvement of the private sector or local communities in supporting this policy?
- [c] How is the supervision and evaluation of the implementation of the local food utilization program for the nutrition of pregnant women carried out?

#### [4] Technical Support and Resources

- [a] Does the government or other agencies provide technical assistance or resources to support the cultivation, processing, and distribution of local food?
- [b] Is there any training or counseling done to improve Understanding of the community and farmers about the benefits of local food for the nutrition of pregnant women?
- [c] What are the forms of incentives given to farmers or business actors who produce high-quality local food?

## [C] Challenges in Local Food Utilization

- [1] Availability and Distribution
  - [a] Are there any constraints in terms of local food availability, especially in rural and remote areas?
  - [b] What are the challenges of local food distribution, especially from production areas to consumer areas?
  - [c] Are there policies that facilitate a more equitable distribution of local food in the East Kalimantan region?

#### [2] Social and Economic Challenges

- [a] How do economic conditions affect the consumption of local food by pregnant women? Is local food more affordable compared to imported or commercial food?
- [b] Are there any cultural barriers that might limit the acceptance or consumption of local food by pregnant women?
- [c] What is the role of community leaders in promoting local food in this region? How do they affect the consumption behavior of pregnant women?

## [D] Recommendations

- [1] Local Food Development Strategy
  - [a] In your opinion, what steps need to be taken to increase the production and utilization of local food for pregnant women in East Kalimantan?
  - [b] What is the role of the government, farmers, and the community in

encouraging the use of local food more optimally?

- [2] Improving the Accessibility of Local Food
  - [a] How can we improve the accessibility of local food for pregnant women, especially in remote areas?
  - [b] Are there mechanisms that can be implemented to strengthen the local food supply chain from producers to consumers?

## [3] Policy Intervention

- [a] What is your suggestion for optimizing policies that support food security and nutrition through local food?
- [b] How can the government more actively encourage local food consumption as part of the nutrition program for pregnant women?
- [c] Is there a need for incentive programs for farmers or entrepreneurs who produce quality local food to increase this food supply?
- [4] Nutrition Education and Counseling
  - [a] How do you see the importance of nutrition education about the benefits of local food for pregnant women?
  - [b] What kind of counseling or education programs are effective in increasing pregnant women's knowledge about the importance of local food consumption?
  - [c] How can we involve community leaders, midwives, and health cadres in raising awareness about the benefits of local food?

#### [E] Closing FGD

- [1] Are there other issues that have not been discussed related to the use of local food in improving food security and nutrition of pregnant women in East Kalimantan?
- [2] Are there any additional suggestions related to strategies to maximize the potential of local food in supporting the health of pregnant women

# Focus Group Discussion (FGD) Guide

# Involving Officers from the Health Office, Food Security Service, and Health Center

## The objectives of this FGD:

- [1] Identify local types of food and their potential for nutritional fulfillment of pregnant women.
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