**Organizing Children's Day at EIAR to Showcase Moringa-Based Food Products**

**Introduction**

Children's Day presents a unique opportunity to promote health and nutrition among young children. M. *Stenopetala*, commonly known as the drumstick tree, is a highly nutritious plant rich in vitamins, minerals, protein and antioxidants. Childhood is defined by rapid cognitive, emotional, and social development along with continuous physical growth between the ages of 4 and 13. In comparison to adults, children have higher nutritional needs relative to body weight because of their accelerated growth and metabolism. Healthy childhood diet is essential for cognitive development, growth, and reducing the risk of chronic illnesses. Development of food products that contain moringa which are sensorially acceptable by children's one way of delivering essential nutrients that can potentially address malnutrition and improve overall health outcomes for children. This concept note proposes to introduce, popularize and demonstrate moringa-enriched food products, developed by Food Science and Nutrition Research Directorates (FSNRD), among the children of employees of Ethiopian Institute Agricultural Research (EIAR). Furthermore, children's day creates an opportunity for children’s to meet scientific communities and understand their parents engagements within the institute.

**Objectives**

The objective of organizing children’s day within EIAR compound is to:

* Introduce moringa-enriched food products to children and their families
* na
* Assess acceptance of moringa based food products

**Methodology**

**Participants of the Moringa Children’s Day**

An invitation letter outlining the goal of moringa children's day will be prepared, and circulated to EIAR employees, and it will also be affixed to the notice boards situated within the compound, along with registration form for the event. This event will be taken as a base for the follow up similar engagements.

**MAJOR COMPONENTS OF THE EVENT**

**Moringa enriched food testing**

A booth dedicated for different moringa based food items will be made available where children, their parents and caregivers will have sensory evaluation forms to give feedback on moringa enriched food products

**Educational sessions**

Nutritional talks will be prepared involving different professionals and traditional practitioners on the benefits of moringa, tailored for children and caregivers. In addition to that there will be visual presentations on how moringa is grown, processed, and its health impacts. Provide informational materials and conduct demonstrations on incorporating moringa into everyday meals.

**Games and fun activities**

Games and fun activities including moringa themed quiz, art and craft corner, cooking competition, games and contests and interactive storytelling will be included in the program. A quiz competition with questions related to moringa, nutrition, and healthy eating habits will be one of the activities in the program, and for which prizes will be prepared. As part of arts and craft activities, there will be moringa leaf printing, where children can create art using moringa leaves and natural colors and as a DIY, planting kits will be provided for children to take home and grow their own moringa plant (this includes seeds and small pots). A mini competition to be organized will enable children and their parents to create dishes using moringa, with judges and small rewards. Different games will also be organized involving children to have fun.

In addition to that, narration in the form of stories will be organized as part of the event to tell children and their parents about the journey of moringa from farm to table, narrated in a fun and engaging way.

**Entertainment and engagements**

Considering the overall event engaging for children and their parents, in this program it is planned to have additional entertainment activities including the following:

* Music and Dance:

Songs and dances themed around healthy eating and moringa.

* Photo Booth:

A photo booth with moringa-themed props where children can take pictures with their creations.

**Product Development:**

**Pancakes:** Prepare pancakes with varying concentrations of moringa powder.

**Muffins**: Bake muffins enriched with moringa, ensuring consistency in taste and texture.

**Rice with Moringa-Enriched Spice**: Cook rice using a spice blend containing moringa, balancing flavors to maintain palatability.

**Energy Ball:** Preparing with the blend of 5 % and 10 % moringa dry leaf, Oats, dates, sesame, honey, groundnut

**Cookies:** Nutrient dense and sensorial acceptable cookies will be prepared

**Acceptance Evaluation:** assesses the acceptance of each product where children will taste the moringa-enriched products. Use age-appropriate methods such as facial expression scales, hedonic scales, and simple questionnaires to gather feedback on taste, texture, aroma, and overall liking.

**Feedback Collection and Analysis**: Collect data from acceptance assessment and analyze it to determine the acceptance levels of different moringa-enriched products. Identify the most and least liked products and/or formulations of the reasons behind these preferences.

**Budget**

Table 1. The list of items to be purchased and other expenses.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No** | **Ingredients /Items/** | **Quantity** | **Unit** | **Unit price** | **Total cost** | **Remark** |
| 1 | Moringa leaves | 20 | kg | 400 | 8000 |  |
| 2 | Oil | 20 | L | 300 | 6000 |  |
| 3 | Rice | 30 | Kg | 500 | 15,000 |  |
| 4 | Wheat Flour | 50 | Kg | 200 | 10,000 |  |
| 5 | Egg | 100 | pic | 15 | 1500 |  |
| 6 | Milk | 10 | L | 130 | 1300 |  |
| 7 | Peanut butter | 3 | Kg | 1500 | 4500 |  |
| 8 | Oats | 10 | Kg | 150 | 1500 |  |
| 9 | Dates | 5 | Kg | 350 | 1759 |  |
| 10 | Sesame | 5 | Kg | 400 | 2000 |  |
| 11 | Honey | 3 | Kg | 1000 | 3000 |  |
| 12 | Ground Nut | 8 | Kg | 150 | 1200 |  |
| 13 | Lentils | 10 | Kg | 120 | 1200 |  |
| 14 | Salt | 4 | kg | 70 | 280 |  |
| 15 | Pepper | 10 | kg | 600 | 6000 |  |
| 16 | Onion | 50 | kg | 100 | 5000 |  |
| 17 | Banner preparation | 18 | 1x1.2m | 500 | 15, 000 |  |
| 18 | Brochure preparation | 600 |  | 40 | 30000 |  |
| 19 | Food item leveler | 18 |  | 10 | 180 |  |
| 20 | Tents |  | 4\*4 |  | 6000 |  |
| 21 | Food item leveler | 18 |  | 10 | 180 |  |
| 22 | Stationary (A4 paper, pen, pencil and marker) |  |  |  | 6000 |  |
| 23 | Food packaging materials (Aluminum foil, plastic bag, plastic tray, plaster, plastic cup, spoon etc) |  |  |  | 30000 |  |
|  | Sub total | | | | **140, 419 ETB** | |

# Table 2. Per-diem for facilitators and participants

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Payments/ Expenditures** | **Unit price (Birr)** | **No. of participants** | **Number of days** | **Total** |
| 1 | Per diem for senior researchers | 650.00 | 6 | 15 | 58,500 |
| 2 | Per diem researchers | 450.00 | 15 | 20 | 135,000 |
| 3 | Per diem others | 300.00 | 25 | 10 | 75,000 |
|  | Sub total |  | | | **268,500.00 ETB** |

## Table 3. Budget summary

|  |  |  |
| --- | --- | --- |
| No | Cost type | Amount |
| 1 | Raw materials for food preparation | 140,419 |
| 2 | For facilitators and participants | 268,500.00 |
| Total | | 408,919 |
| Contingency (10%) | | 40891.9 |
| Grand total | | **449,810.09 ETB** |

**Expected Outcomes**

**Acceptance Data**: Detailed insights into the preferences of children regarding moringa-enriched food products.

**Product Development Insights**: Information on which moringa-enriched products and/or formulations are most acceptable to children, guiding future product development efforts.

**Increased Nutritional Awareness**: Enhanced understanding among children and their parents about the nutritional benefits of moringa and its role in a healthy diet.

**Potential for Wider Implementation**: Evidence-based recommendations for the wider introduction of moringa-enriched foods in school feeding programs and community nutrition initiatives.