
The Role of Soy in ADRA Ghana's USAID Funded Integrated Food Security Project

Bridget Aidam
ADRA International



*Profile of Ghana

Adult literacy rate: 54

- Male: 63

- Female: 46

- Adjusted maternal mortality: 540

- Under five mortality: 112

- Infant mortality: 68

- Malnutrition rates for U-5

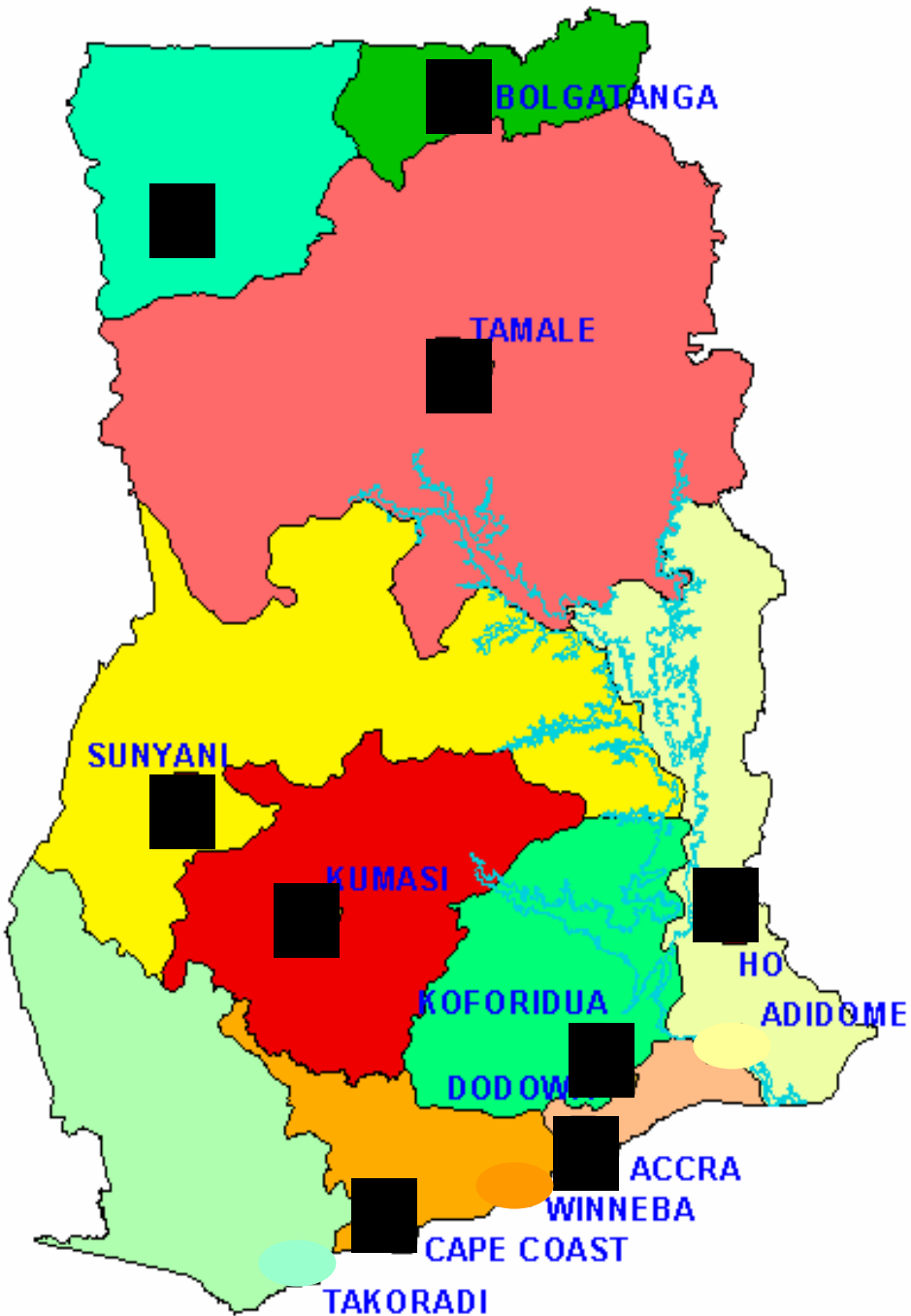
- Underweight : 22%

- severe : 5%

- Stunting: 30%

* State of the world's Children 2006

ADRA Ghana's USAID Funded Food Security Program



- Coverage: ADRA present in 9 out of 10 regions
- With 13 operational areas in 51 districts
- Total of 600 communities
- About 14,000 client farmers
- With 300,000 beneficiaries

Overview of Health and Nutrition Component of the Food Security Project

- SO: Improved Health and Nutrition Status in targeted areas
- IR1: Improved Nutrition and preventive health knowledge and practice
 - Community education in nutrition and preventive health
 - Education of school children in nutrition and preventive health

Production Assistance Given to Clients

- Land preparation
 - Tractor services
 - Bullocks for plowing
- Supply of Inputs
 - Improved seeds
 - Fertilizer & manure
 - Boots, cutlasses
 - Silos & cribs for storage
- Extension services support
 - Provided by MOFA and ADRA field staff



Marketing

- Price at time of harvest determined at a meeting
- Loan repayment in-kind by farmers
- Link to buyers
 - Industry e.g. Bosbell (Tamale) for processing into Soya bean oil and soy cake
 - Exporters
- Market sales
- Household consumption



Strategies Used to Promote Soy Utilization in Communities

Rationale: Help improve nutrition at the household level

Nutrition Education

- Five member trained Health and Agric Teams (HAT) in communities
- Use of film shows, radio, group and interpersonal education



Training in Food Preparation Methods

- Collaboration with
 - Women in Agricultural Development (WIAD) of Ministry of Food and Agriculture (MOFA)
 - Nutrition Unit of the Ministry of Health (MOH)
 - Ghana Education Service (GES)
- To enhance sustainability and allow for continuity



ALL HANDS ON DECK



ADDING SOYA TO SAUCE

Dishes with Soy

- Training of school teachers in food sources and role of Soy in improving nutrition
- Soy is added to various local dishes pertaining to specific areas



Soy Processing at the Household Level

- Dried Soya bean
- Wash bean (while water is on fire)
- Put washed bean in boiling water
- Boil for 25 to 30 minutes without a lid/cover
- Remove from fire and drain off water
- Pour cold water on it to cool it
- Rub in between palms to remove the hull
- Separate hull from bean
- Mill the bean to obtain paste/dough or
- Dry beans milled to obtain powder
- Final products used on their own or incorporated into dishes

Soya Beans



Soy Flour



Soy Dough



02/08/2006

Weanimix



02/08/2006 07:14 am

Soy Milk



Preparation of Soy Milk at the Household Level

- Take 1 part Soya dough to 4 parts water
- Mix them together and strain twice
- First using colander and then muslin cloth



MIXING SOYA PASTE WITH WATER FOR MILK



STRAINING THE MILK OF SOYA

Preparation of Soy Milk at the Household Level

- Cook at near- boiling temperature for 10 minutes while stirring at intervals
- Add salt, sugar and flavor to taste
- Serve cold



Straining with muslin cloth



Reaction to Soy Products

- Positive reaction from farmers and their families
- For areas where Soya bean is not cultivated, farmers have requested to try its cultivation
- Acceptability: Irrespective of the cooking process used, soy presents an acceptable flavor and taste

Storage of Products and Associated Problems

Shelf life of products

- Soya beans - can be stored for about 2 years
- Soy milk and paste - can stay for up to 24 hours without refrigeration
 - Very short shelf life
 - Have to be processed when needed
- Flour and weanimix - can stay up to one month under room temperature
 - Grows moldy after a month of storage

Malnourished Child Suffering from Marasmus



After Intensive Feeding with Soya bean and Moringa for Four Months



Challenges

- Access to seeds for cultivation
- Household processing
 - Long cooking time (soaking)
 - Cost of fuel, water (tree planting, portable water)
 - Lack of corn mills (corn mills given on credit)
- Why choose Soy bean over multiple legumes
 - Nutritional value
 - Storage attributes

Lessons Learned

- Important not to introduce Soya beans as a “new” or “different” food item but to incorporate into existing diet
- Facilitate cultivation
- Direct linkage between agricultural and nutrition program helped
- Collaboration provided support from agencies
- Involvement of men promoted acceptance and consumption in homes