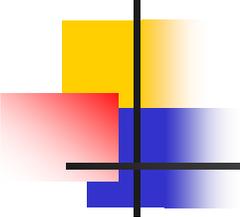


Upgrading Nigeria's Food Composition Database With Under-Utilized Nigerian Traditional Foods and Recipes

Isaac Akinyele PhD, FNSN, FIUNS

Professor, Department of Human Nutrition,
University of Ibadan, Nigeria

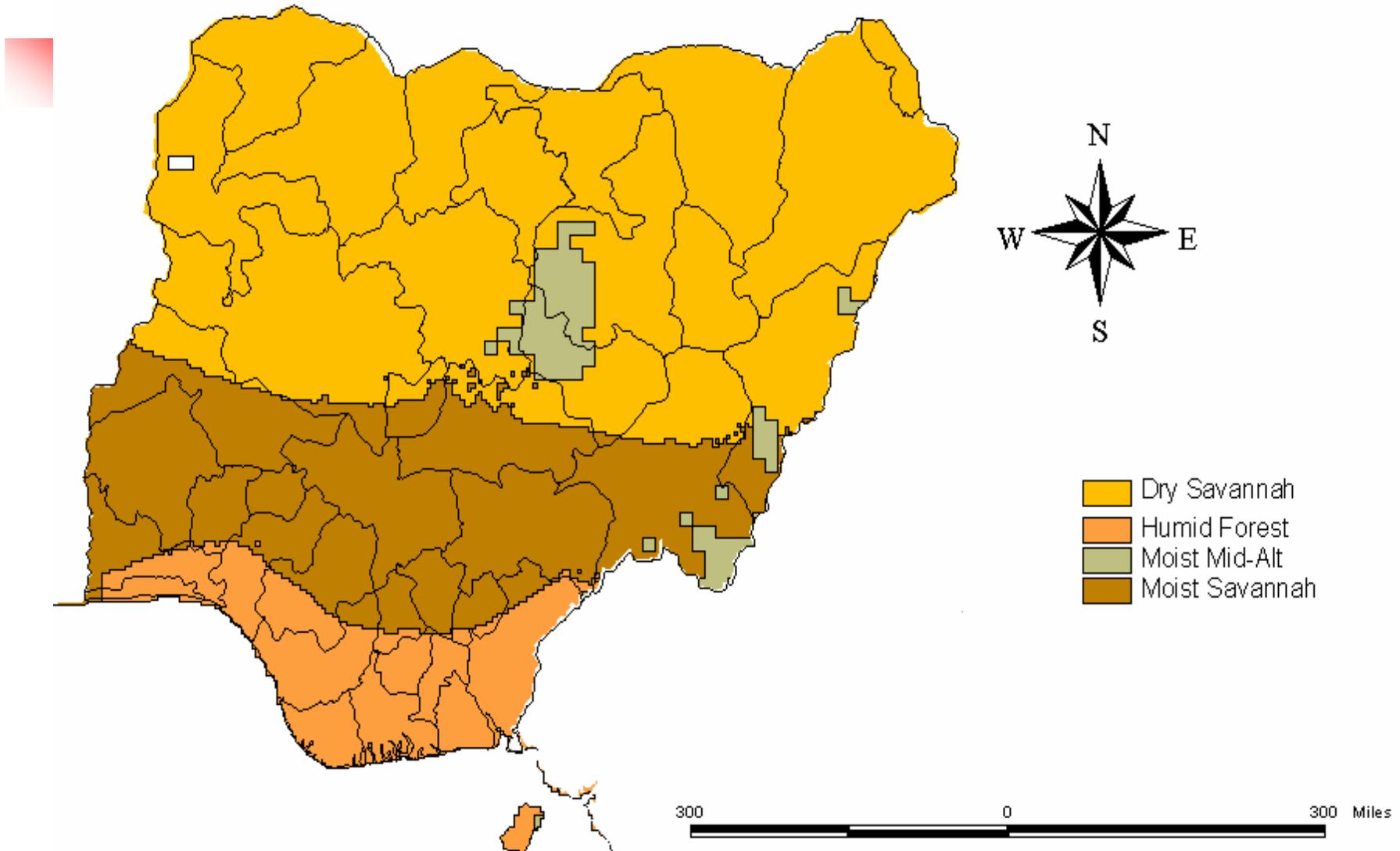
presented at the *31st National Nutrient Databank Conference April 27, 2007*, Washington DC



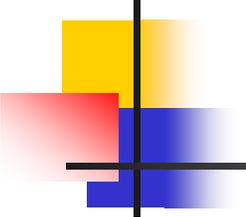
Introduction

- Nigeria is a nation with ethnically and culturally diverse food consumption patterns in the different agro ecological zones
- The diets of the people are based on the foods produced and/or marketed in the different zones
- Urbanization has created changes in food consumption patterns with more processed foods being available in cities

Map Showing Agro-ecological Zones

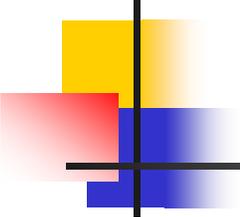


(Source: IITA GIS-Lab 2000)



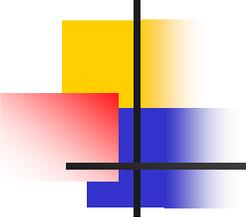
Introduction cont'd

- There is an increasing interest in studying the relationship between diet and diseases in Nigeria especially those referred to as non communicable diseases
- The prevalence of these non communicable diseases are on the increase in Nigeria due to rapid urbanization, globalization and lifestyle (dietary) changes
- The NCDs contribute to the double burden of diseases making them a significant public health problem



Intro contd

- There is thus an increasing need for more complete, accurate, reliable data on the nutrient content and nutritional value of foods.
- This is to enable the recommendation of combinations of foods that will promote good health and reduce the risk of these non-communicable diseases.



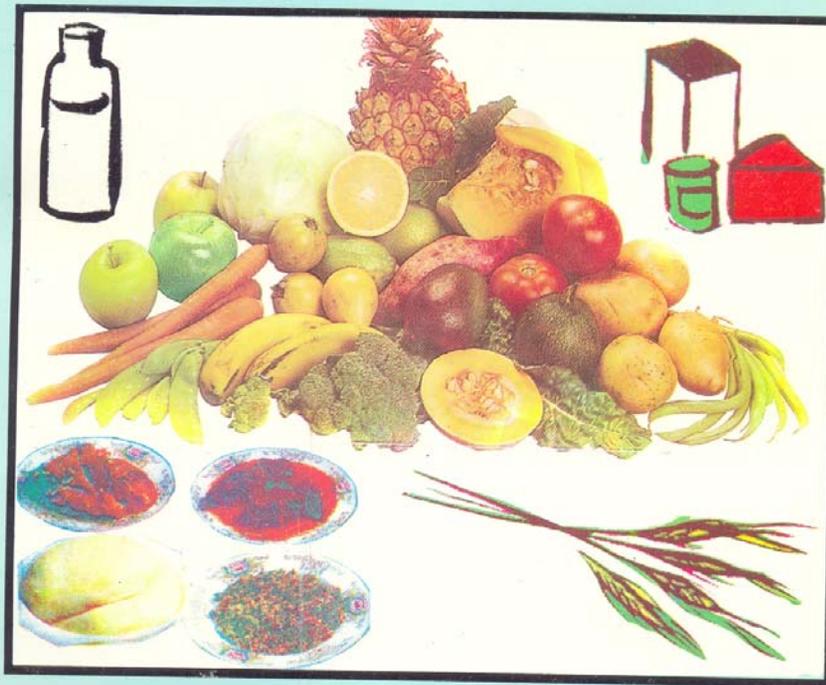
Introduction contd

- To this end a nutrient composition of Nigerian Foods: Raw Processed and Prepared was compiled and published in 1995 (Oguntona and Akinyele) to serve as a means of identifying foods which will prevent these conditions and promote health
- The 1995 document did not capture all foods consumed in Nigeria especially those traditional foods which have properties for reducing non communicable diseases
- Many of these traditional foods are becoming extinct due to under utilization and preservation of the species

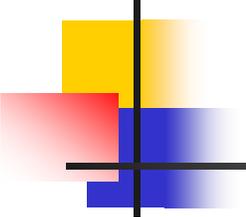
NUTRIENT COMPOSITION OF COMMONLY EATEN FOODS IN NIGERIA – RAW, PROCESSED AND PREPARED

Edited by:

E. B. Oguntona
I.O. Akinyele

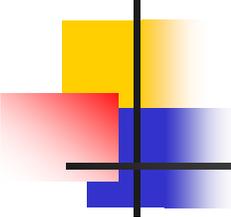


Food Basket Foundation Publication Series



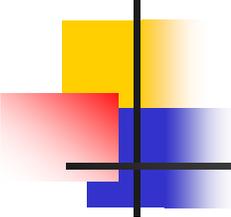
The Concept

- The concept of this project is to update the 1995 food composition table by
- Reviewing published analytical data on traditional under utilized foods since the 1995 compilation
- review the data in accordance with internationally accepted standards for sampling, sample handling/preparation, analytical methodologies, and laboratory quality control



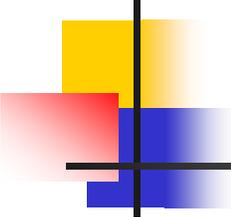
Concept contd

- Identifying, and analyzing other foods not identified in the review
- Standardizing the local recipes derived from them followed by analysis
- Creating a database with the updated compilation
- Prepare dietary guidelines based on the nutrient composition of the various recipes



Methodology

- To achieve these
- A NIGERIAFOODS DATABASE NETWORK has been formed with scientist from different institutions located in each agro-ecological zone to undertake the review according to agreed guidelines
- Samples of 15 different foods have been collected from 7 Nigeria cities yielding 141 foods
- When pooled based on variety the number of samples reduced to 61

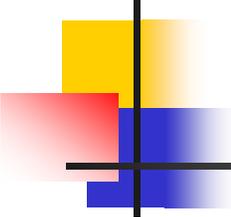


Samples

- These samples are from
- Roots and tubers
- Cereals
- Legumes

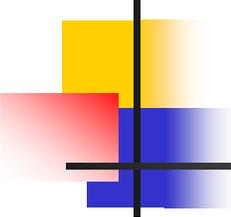
Next phase is to sample

- Fruits
- vegetables



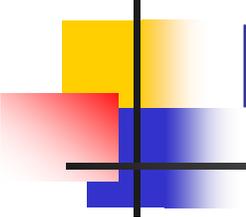
Sampling procedure

- In each city where samples were obtained
- Major markets were listed followed by random selection of two markets from where the samples were purchased, given three digit codes and transported to the laboratory for analysis
- Enugu Enugu State,
- Ibadan, Oyo state,
- Jos, Plateau State,
- Kaduna , Kaduna State,
- Lagos Lagos State,
- Maiduguri Borno State and
- Uyo Akwa Ibom State



Nutrients to be Analysed

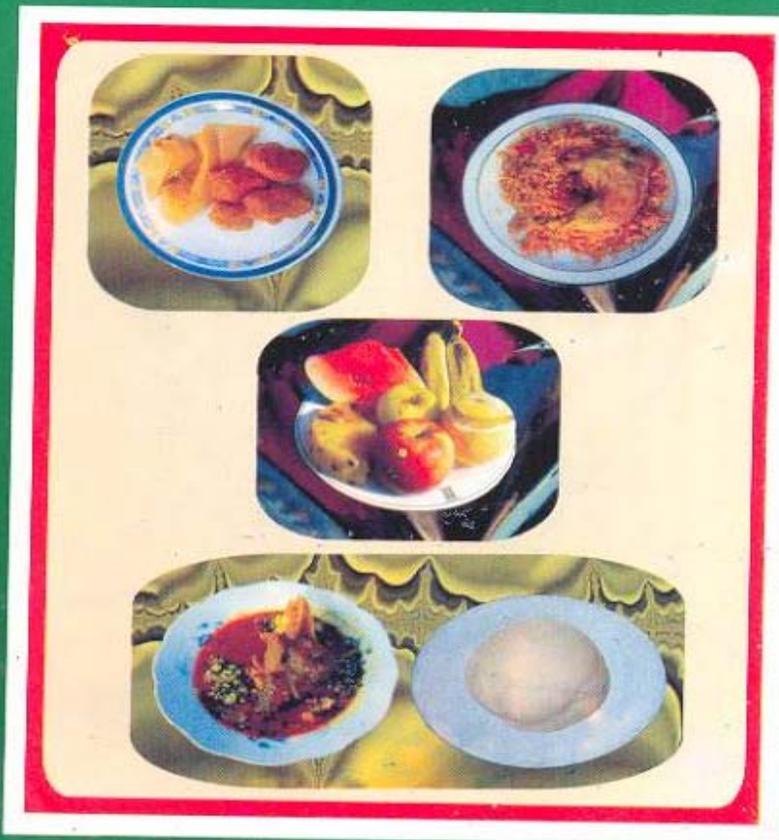
- Proximate composition-dry matter, energy, protein, fat, fiber, ash
- Minerals-calcium, phosphorous, sodium, potassium, magnesium, zinc, iron
- Vitamins- A, E and C
- Methods of analysis are as described by AOAC

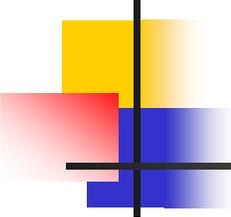


Recipes

- The Federal Department of Rural development collected through their extension workers recipes of different traditional foods from the six geopolitical zones of Nigeria.
- There was a workshop to assess and harmonize the recipes in terms of ingredients and quantities required to make a meal
- Then classification into different sub categories.
- Publication of the recipes into book form in 2006

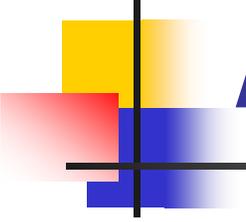
RECIPES FOR COMMONLY
EATEN MEALS
IN
NIGERIA





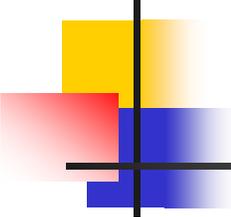
Recipes

- Complementary foods 49
- Breakfast foods 18
- Main meals 69
- Snacks 60
- Foods for special cases 40
- (sick children, elderly and HIV/AIDs)



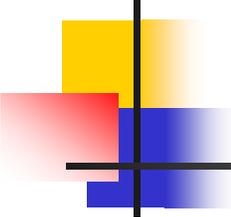
Analyses

- The recipes will be prepared in the laboratory and analyzed for same set of nutrients
- Included in the database



Challenges/Solutions

- Limited financial support to accomplish tasks
- Thus there is the need for collaborators with resources to accomplish the goal of this project



Acknowledgements

- FAO Regional Office for Africa, Accra
- Food Basket Foundation International