



World Vegetable Center

Development Action Plan (DAP)

Mohsen Farghaly Ahmed

1 December 2017

36th International Vegetable Training Course

“Vegetables: From Harvest to Table”

Module 2



- Mohsen Farghaly Ahmed
- Researcher
- Food Technology Research Institute, Agricultural Research Center.

➤ Education background

- MSc Biochemistry, Faculty of Agriculture.
- PhD Biochemistry, Faculty of Agriculture.

➤ Main responsibilities

- Assistant technical manager of international standard ISO/IEC 17025 in determination of sugars.
- Responsible for some chemical analysis in Food Technology Research Institute.





Demographics

Arab Republic of Egypt



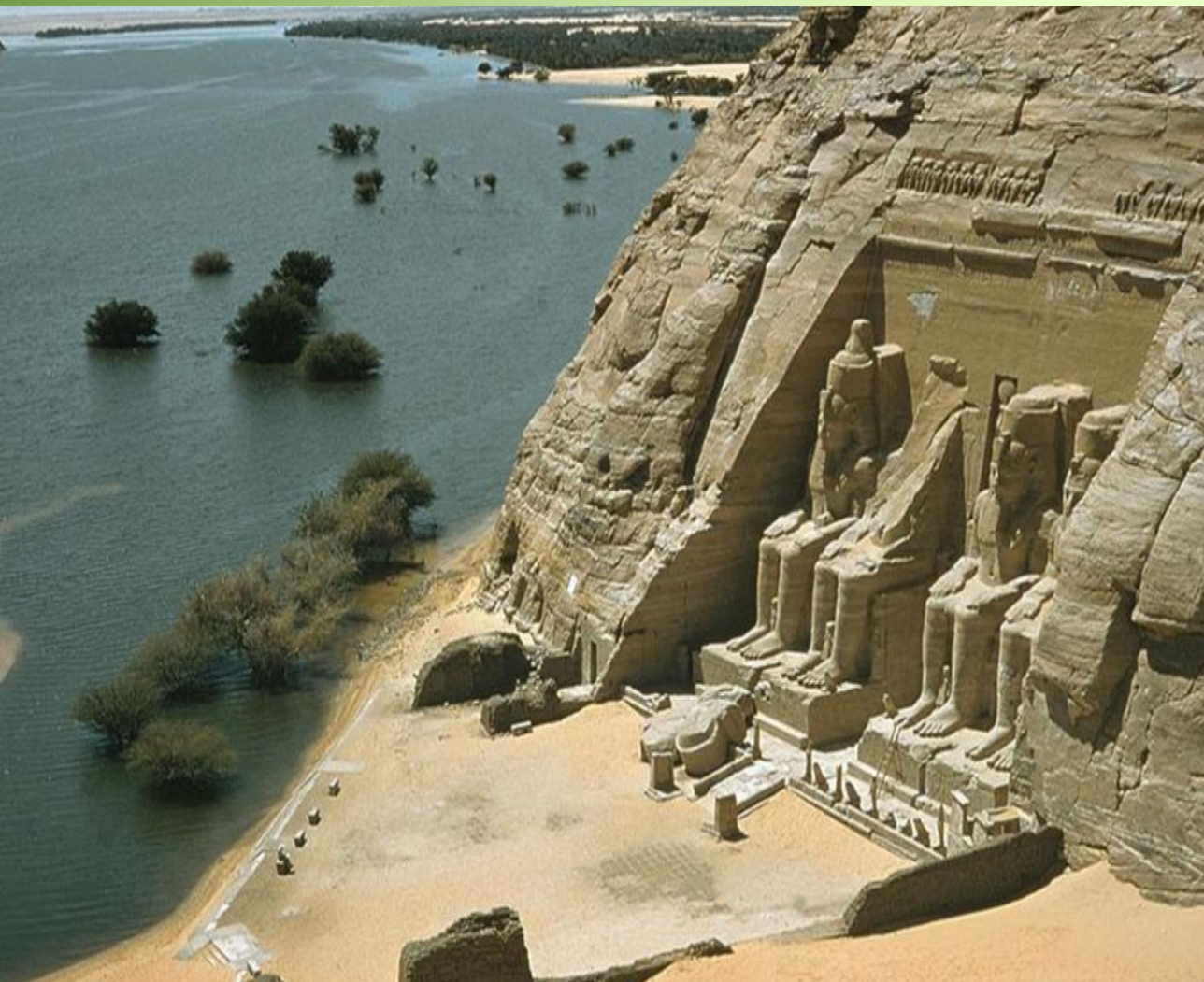
Location	Northern east of Africa
Surface-area	1 Million Km ²
Capital	Cairo
Population	100 million
Economical Activities	Agriculture, Industry and Tourism
Official Language	Arabic





THE CAPITAL OF EGYPT : CAIRO





Ramses Temple



Amun Temple

Luxor





World Vegetable Center

Our organization

Ministry of Agriculture and Land Reclamation



Agricultural Research Center

Food Technology Research Institute





"Technological Research Departments"

Bread & Pasta

Special Food & Nutrition

Horticultural Crops

Field Crops

Fats & Oils

Fish & Meat

Milk & Dairy Products

Food Engineering & Packaging



Three topics in module 2 that I found most useful

- Packaging, package design and materials
- Cooling, pest control and storage
- Bioactive compounds in vegetables and fruits





Problem no:1

- Do school meals cover the nutritional requirements of school children?





Nutritional Status of Egyptian school children

Malnutrition disorders affect more than 30% of school children in Egypt.

Iron deficiency anemia is the most common nutritional disorder.

Subclinical vitamin A deficiencies and other micro nutrient deficiencies are also present.





So

- Poor nutrition can leave students' liable to illness or lead to headaches and less able to concentrate, solve problems and remember information.





Problem no:2

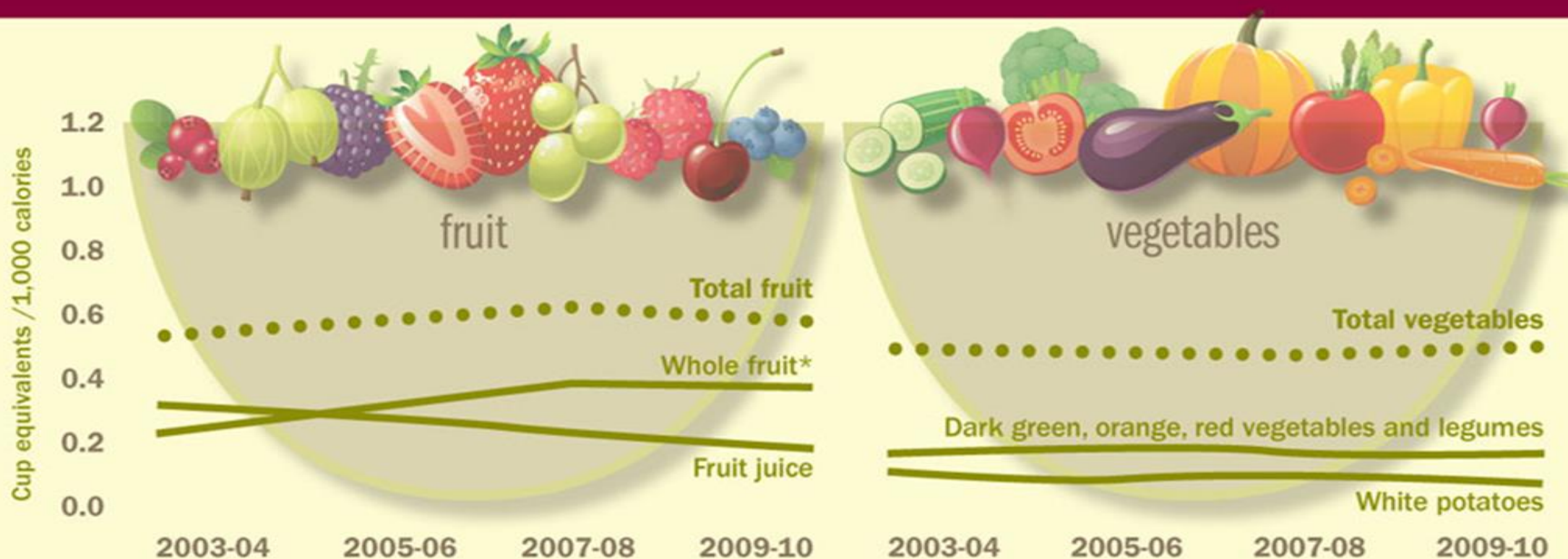
Are children eat enough fruits and vegetables?

- **Children are eating more fruit but not enough.**
 - 6 in 10 children didn't eat enough fruit in 2007-2010.
 - As children get older, they eat less fruit.

- **Most children need to eat more vegetables.**
 - 9 in 10 children didn't eat enough vegetables in 2007-2010.



Children, ages 2-18, are eating more fruit but not more vegetables (2003 to 2010)



SOURCE: National Health and Nutrition Examination Survey 2003 to 2010

*All forms of fruit excluding juices

This chart show that fruit consuming increased from 2003 to 2010 compared with vegetables consuming for children.





Basic nutrition needs from fruits and vegetables for school children



Girls

Age	Fruit	Vegetables
2-3	1 cup	1 cup
4-8	1-1½ cups	1½ cups
9-13	1½ cups	2 cups
14-18	1½ cups	2½ cups

Boys

Age	Fruit	Vegetables
2-3	1 cup	1 cup
4-8	1-1½ cups	1½ cups
9-13	1½ cups	2½ cups
14-18	2 cups	3 cups



Objectives

The primary aim of this study is to improve nutritional status attention , academic, day performance and physical growth for school children.

Increase awareness of the importance of eating vegetables and fruits for school children.





Inputs

Personal staff

Money

Materials &
equipment

Diets (Fruits &
Vegetables)

Transportation





Activities

2018 - 2023

- Workshops for training of trainers(TOT)
- Educational training for schools staff and children
- Awareness programs for mothers





Resources

20% of the personal staff will be trained

3,000 awareness publications will be printed

10 Workshops will be held for school students

Different groups of school children will be selected and measure their academic, day performance and physical growth.





Total budget Proposed

Details	2018-2025
Materials & equipment	250,000
Personal staff	175,000
Transportation	50,000
Minor modifications& repair	25,000
Total	500,000 \$ = 8,500,000 EGP





Outcomes

Improvement of nutritional health status, physical growth and academic performance of school children.

Increasing awareness of the importance of eating vegetables and fruits for school children.





Cooperators

Ministry of agriculture

Ministry of education

Institute of nutrition





Challenges

- The extent to which children respond during the trial period.
- Budget allocation for making diets and academic, day performance and physical growth analysis for children per week.



