Development Action Planning (DAP)

Module 2: Harvest to Table
36th IVTC

Presentation format

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Content

- Overview of Burkina Faso
- Agriculture and Nutrition in Burkina Faso
- Role of horticulture office (SDPHE)
- Development Action Plan
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Overview of Burkina Faso

- Burkina from Mòoré means ‘men of integrity‘,
- while Faso in Diouala means ‘fatherland‘.
- Therefore, Burkina Fa so means ‘the land of honest people‘.

Overview of Burkina Faso

- Area , T: 274 200Km2,
- Climate
  - Rainfall curve is unimodal :
    - a rainy season from June to October and
    - a dry season from November to May
  - Rainfall generally tending to diminish with :
    - 400 mm average in the north
    - 900 mm average in the south
  - Annual minimum monthly temperature is > 18 ºC
  - with an increasing aridity from south to north

Overview

- Population:
  - 2016 estimate: 18,634,000 inhabitants
  - Density: 68.1/km2 (estimate in 2016)
  - Pop. Growth rate (average annual %): 2.9
  - Total Fertility Rate : 5.7/wife
  - Life expectancy at birth (females/males): 59.3/56.7 years
  - Ethn: Moosé, Mandé, Pheuls, Goulmatché,….
  - Economy : Agriculture 80% of pop, mining exploitation, trade
  - Language: French, Mooré, Dioula and fulfulde

Land under Agricultural Production

5,224,892 HA(2015)

66,930 HA(2016)

Role of horticulture office (SDPHE)

- Government's politics concerning horticulture development consists:
  - to facilitate the access of the producers to the factors of production such us :
    - water
    - inputs (seeds, pesticides and manures of quality)
    - agricultural equipment

Role of horticulture office (SDPHE)

- to participate in the creation of innovation in the horticultural sector as well as the transfer of these innovations to the producers
- the technical capacities building of the producers through the thematic awareness and the follow-up support and advice.

Role of horticulture office (SDPHE)

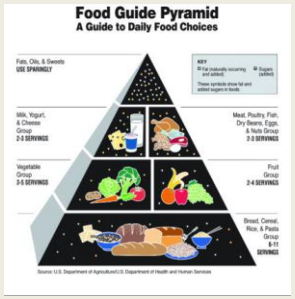
- to facilitate the access of the producers to the credit thanks to the partnership with the financial institutions such as banks
- the products transformation (artisanal and industrial) as well as the storage and linking to the market.

Three most useful topics in Module 2.

1. Fresh cut and microbial control

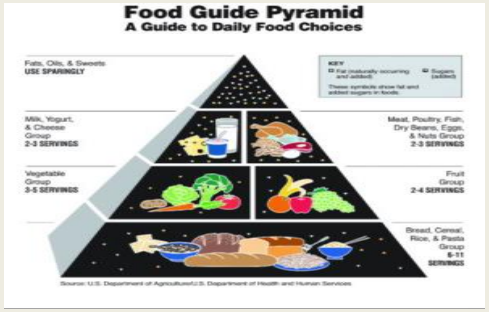
2. Packaging and storage

3. Nutrition intervention from seed to table



Development Action Plan

- Home Garden and Nutrition program in Burkina Faso



Food crop in Burkina Faso

Cultivated species and Yield

- Cereals

2015	MILLET	MAIZE	SORGHUM	COTTON	GROUND NUT	SESAMUM	BEANS	Total
SURFACE(Ha)	1160718	962832	1444937	657839	432665	400254	165647	**5 224 892**
PRODUCTION(T)	946 184	1 766 603	1 435 640	768 930	365 887	235 079	571 304	**5 723 740**

- Vegetables

2016	Tomato	Onion	Eggplant	cabagge	cucurbits	potato	Leafy vegetable	Others	Total
SURFACE(Ha)	20 079	14 725	10 000	4 680	5 300	5 600	2 900	3646	**66 930**
PRODUCTION (T)	305 180	223 800	135 000	71 131	79 287	103 000	44 600	55 415	**1 017 266**

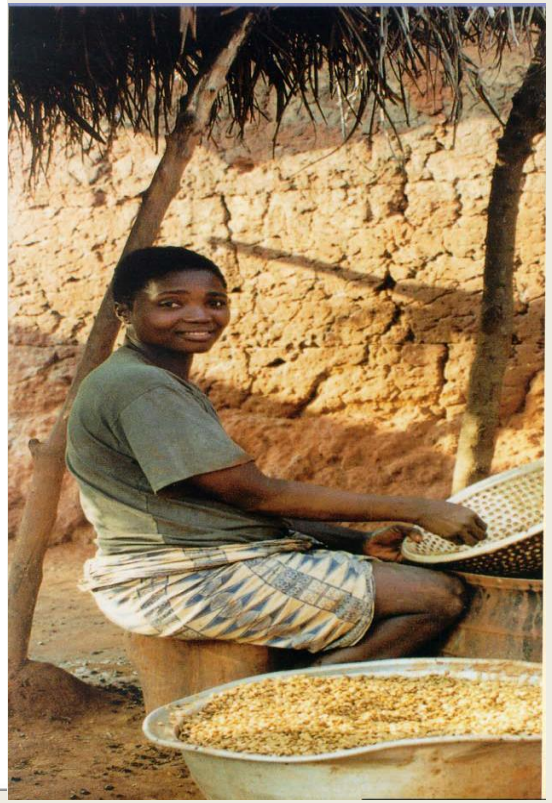
Food consumption/nutritional Statute

Food consumption/nutritional Statute

- Comparison among countries

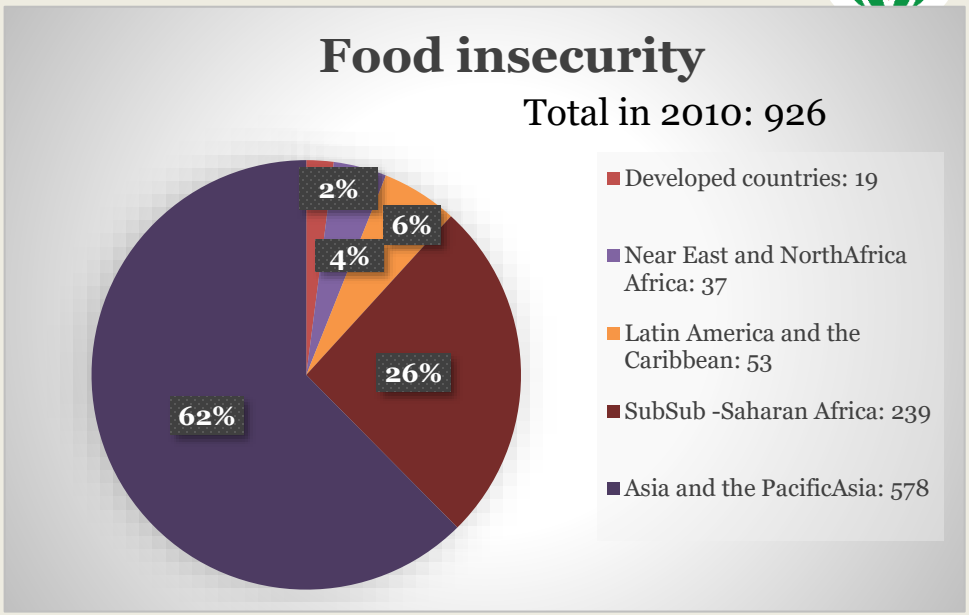
Comparison Among Countries						
	Burkina Faso	Indonesia	Nepal	Philippines	Thailand	Tanzania
Cereals	627	512	473	422	421	287
Starchy Roots	27	159	189	84	57	443
Animal Foods	109	151	161	253	234	155
Pulses and Nuts	35	5	25	9	9	55
Vegetables	37	108	243	170	129	94
Oilcrops	52	103	23	27	63	50
Fruits	16	186	109	334	293	211
Others	14	48	113	77	114	27
Total	917	1272	1336	1376	1320	1322

Source: FAOSTATS (2012)



Vegetables3-5 servings a day
Min. 200 g per day
Min. 73 kg per year

Consequences of malnutrition in Burkina Faso



Malnutrition: tree forms

- Hunger under nutrition
  - : insufficient in protein and energy
- Hidden hunger (micronutrients deficiencies)
  - : deficiencies in vitamin A, Iron, Zinc and Iodine
- Overweight and obesity
  - : over consumption of high energy food

Besides to Burkina, these malnutrition sharp and chronic affect 19% and 39% of the children of less than 5 years respectively, while 21% of the women in age to procreate are in a state of chronic energizing deficit with a direct consequence that is 18% of the children are born with a weak weight.

Consequences of malnutrition in Burkina Faso

Malnutrition in Children

	Children under five (2003-2008) in %				% Low birth weight
Countries	Underweight		Wasting	Stunting	
	Moderate & Severe	Severe	Moderate & Severe	Moderate & Severe	< 2500g
Bhutan	14	3	3	48	9.9
Burkina Faso	32	-	19	36	16.2
Indonesia	18	5	14	37	8.8
Nepal	39	11	13	49	21.2
Philippines	21	5	6	34	21.2
Thailand	7	1	5	16	6.6
Tanzania	17	4	4	44	9.5

: no data available
Source: UNICEF State of the World's Children (2012); WHO NLiS(2008)

Consequences of malnutrition in Burkina Faso

Malnutrition in women

Malnutrition in women based on BMI in %			
Countries	Underweight	Overweight	Obese
	<18.5 kg/m2	≥25kg/m2	≥30kg/m2
Bhutan	-	-	-
Burkina Faso	27.2	9.3	2.4
Indonesia	-	17.8	3.6
Nepal	24.4	8.6	0.9
Philippines	14.2	27.3	5.7
Thailand	6.6	37.1	10.2
Tanzania	22.6	17.7	4.4

: No data available

Source: WHO NLiS(2008

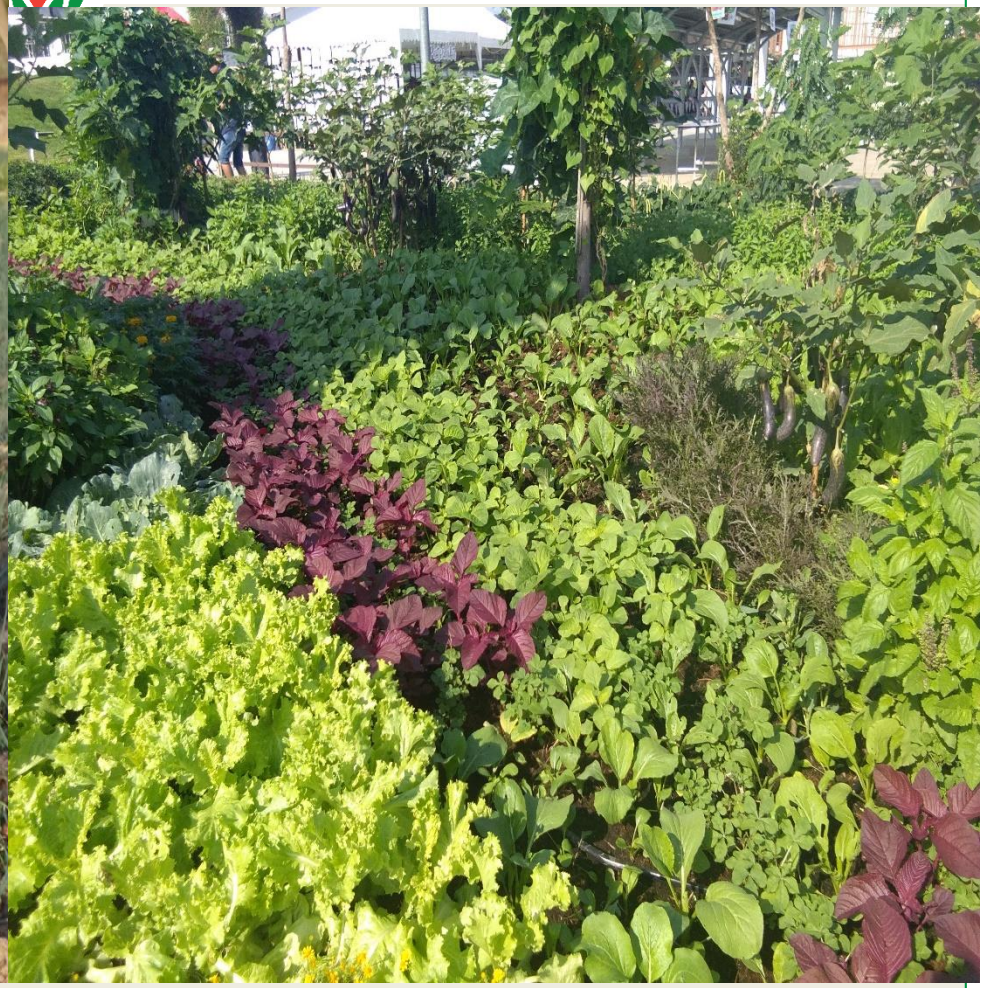
Question?

- How to enhance the nutritional statute of women and children in Burkina Faso?

Proposition(Answer)

Diversify crop production and nutritional food composition for diet from which the topic: Home Garden and Nutritional program in Burkina Faso.

Home Garden



Presentation format

Aim: Reduce malnutrition rate in Burkina Faso

Objectives

1.Promote vegetable home garden

2. Aware nutritional program

Activities:

1. to sensitize national political and social leaders about nutrition for their adhesion.
2. to facilitate producers for the establishment of their own home garden.

3. nutritional training

Implementation :Nutritional home garden

How?

- Home garden establishment
- Participatory home garden survey
- Training sessions

What activities?

- Lectures
- Home garden input acquisition
- Group discussions
- Field demonstrations

- When?
- In 2018 – 2022
- Resources required?
- Home garden input, trainer, demonstration plots, money

Implementation: Home Garden

A. Home garden agricultural practice

- Species and varieties choice
- Land preparation
- Nursery
- Plantation
- culture(irrigation , fertilization, pests control)
- Harvest

B. Post harvest contents

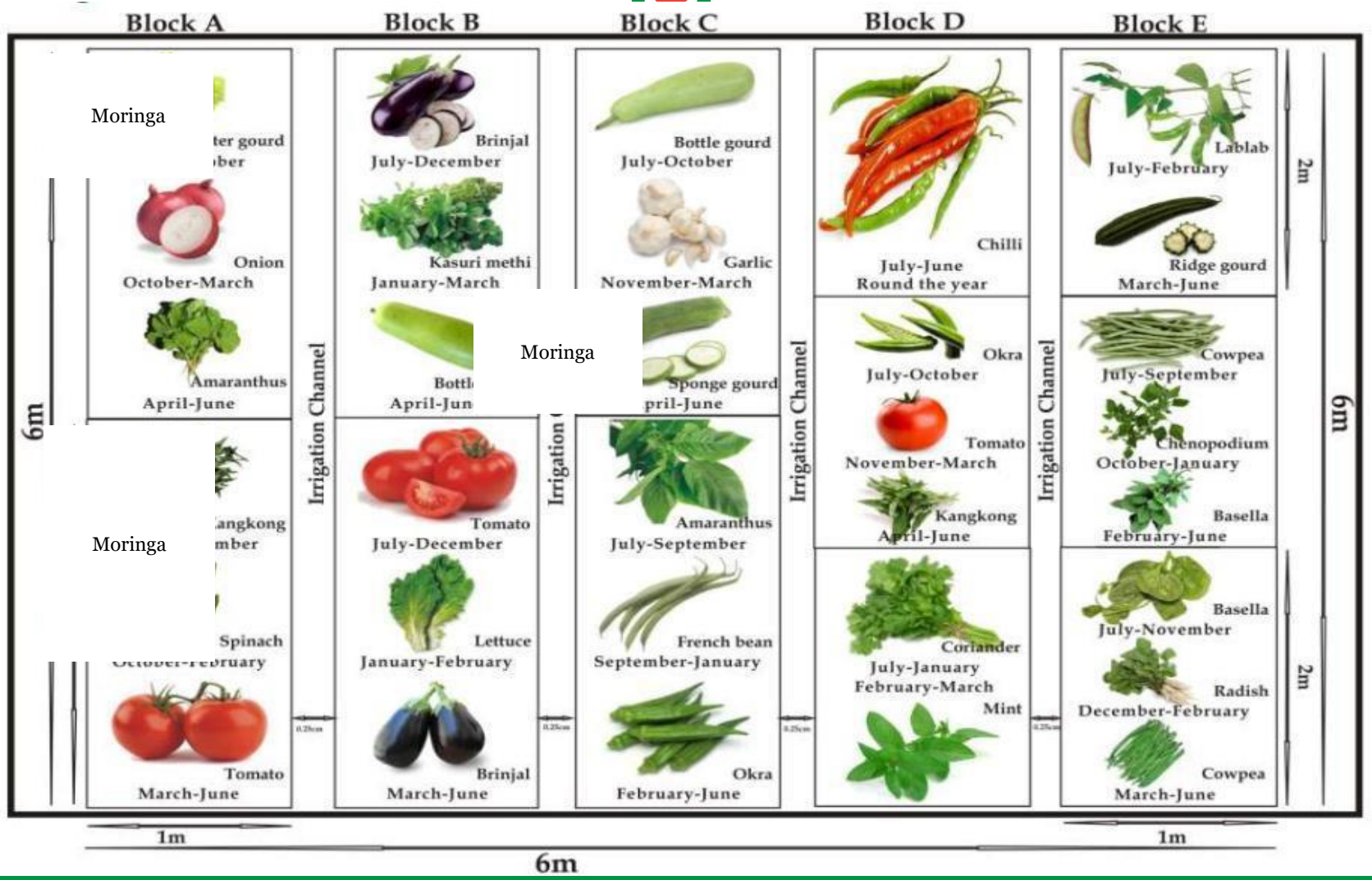
- Conservation: fraiche(cooling, freezing), dry(freez drying)
- Cooking, diet composition

Species

- Some species with equilibrated protein, fat, mineral and vitamins contents
- And mostly vegetable with high contents in vitamin A, Iron, Zinc and Iodine

	Ranges	Tomato	Cabbage	Moringa	Amaranth	Sweet potato leaf
b-Carotene,mg	0.0 -22	0.40	0.00	15.28	9.23	6.82
Vit C, mg	1.1 -353	19	22	459	113	81
Vit E, mg	0.0 -71	1.16	0.05	25.25	3.44	4.69
Iron, mg	0.2 –26	0.54	0.30	10.09	5.54	1.88
Folates, mg	2.8 –175	5	ND	93	78	39
Antioxidant activity, TE	0.6 -82,000	323	496	2858	394	870

Home garden prototype design



Nutritional Training implementation

How?

- Home food preparation participatory consistent
- Training sessions:

What activities?

- Lectures
- Group discussions
- Cooking demonstrations

When?

In 2018 – 2022

Resources required?

Trainers, training hall, food crop, cooking materiel, energy, women, men and children

Training /Implementation

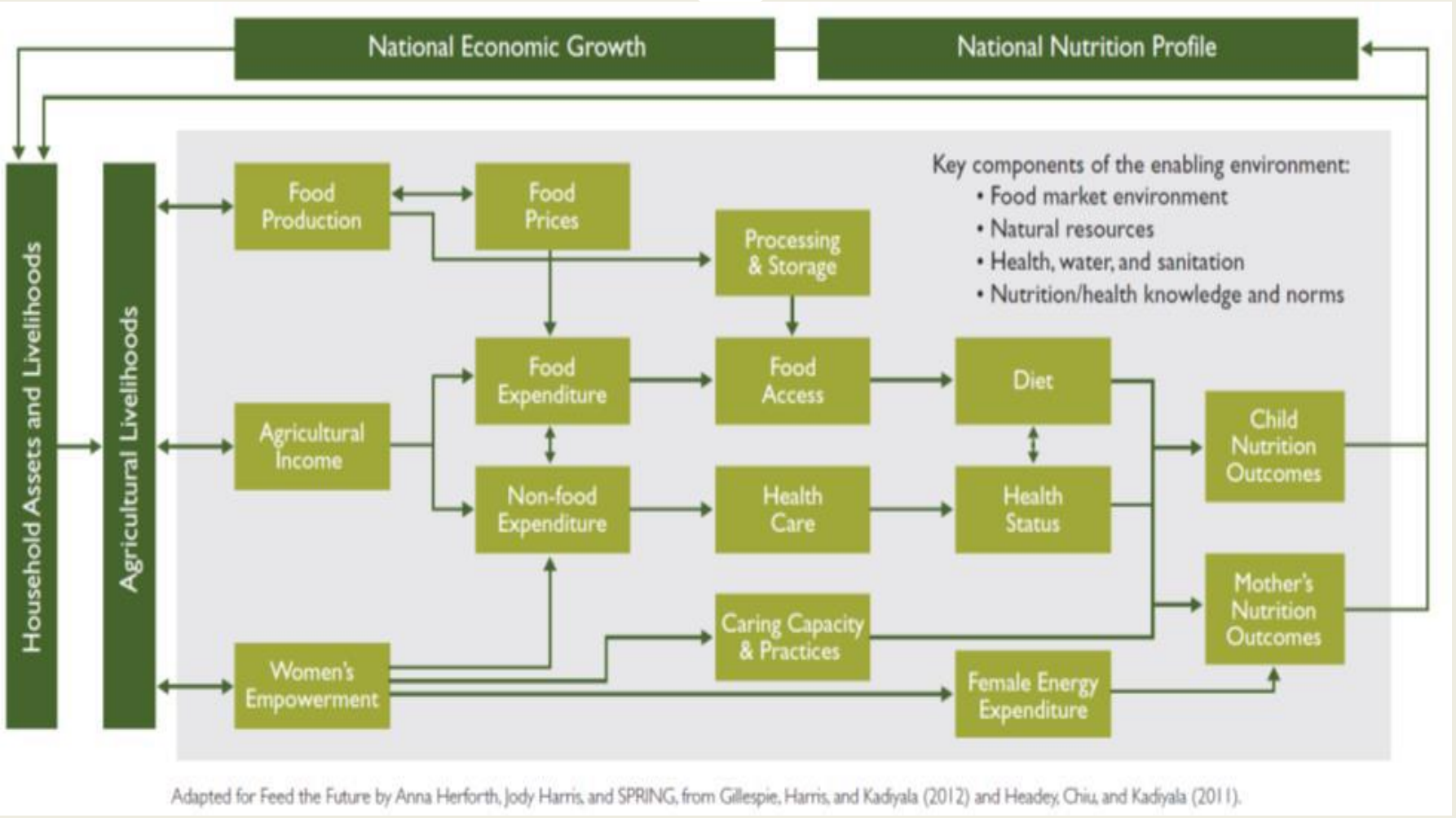
Training (Outlines)

- Fresh cut
- Biological control
- Packaging/storage
- Diet composition
- Cooking and raw vegetable consumption

Nutritional value chain

- What are the types and amounts of food and nutrients
- Produced by farmers
- Made available for dietary requirements
- Distributed
- Accessible and affordable by consumers
- Selected, purchased, used by consumers
- Consumed

Nutrition linking to Agriculture Pathway



Challenges

- To convince producers, men and women, political and social leaders on the importance of linking nutrition with agriculture in order to change the agricultural practices for diversify and a lot of crop production(increase vegetable part).

- Zero death of women and children due to malnutrition from 2022.

Planning and budget(Thousand of $ U.S

Years	2018	2019	2020	2021	2022	Total
Political and social leaders sensitization	1					1
Producers choice	0.5					0.5
Material and input acquisition	30		30			60
HG establishment	1	1	1	1	1	5
Farmers awareness HG(150/year)	3	3	3	3		12
Nutrition awareness (250/year)	5	5	5	5		20
total						98.5

Partenership

- Ministry of Agriculture and Hydraulic Management
- Ministry of Health and Nutrition
- Republic of Taiwan
- Word Vegetable Center
- NGO's

Acknowledgements

- Government of Thailand/ K.U
- MOFA-Taîwan
- World Vegetable Center
- Ministry of Agriculture and Hydraulic Managements-BF
- DGPV-BF

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I BARKA!
THANK YOU!
Kop Kun Krub!