



# International Conference of the OIC Member States – Establishment of an OIC/IOFS Food Security Reserves – 6<sup>th</sup> April 2021

Bringing together member states to develop a framework for the establishment of a Food Security Reserve to alleviate hunger and poverty across the Member States



# Session2

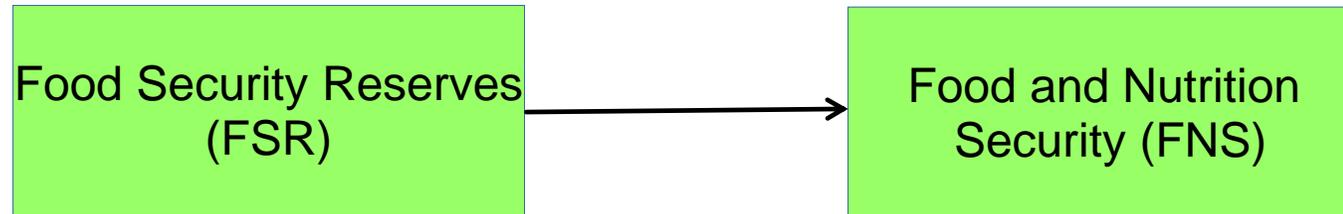
# Food Security Reserves

(an overview)

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# A Vital Link

FSR provide for security in food and nutrition provision



# Dimensions of Food & Nutrition Security

## Chronic undernourishment

- Insufficient food consumption (level and/or diversity)
- Deficiencies in macro and/or micro nutrients
  - May have LT consequences on health and child development

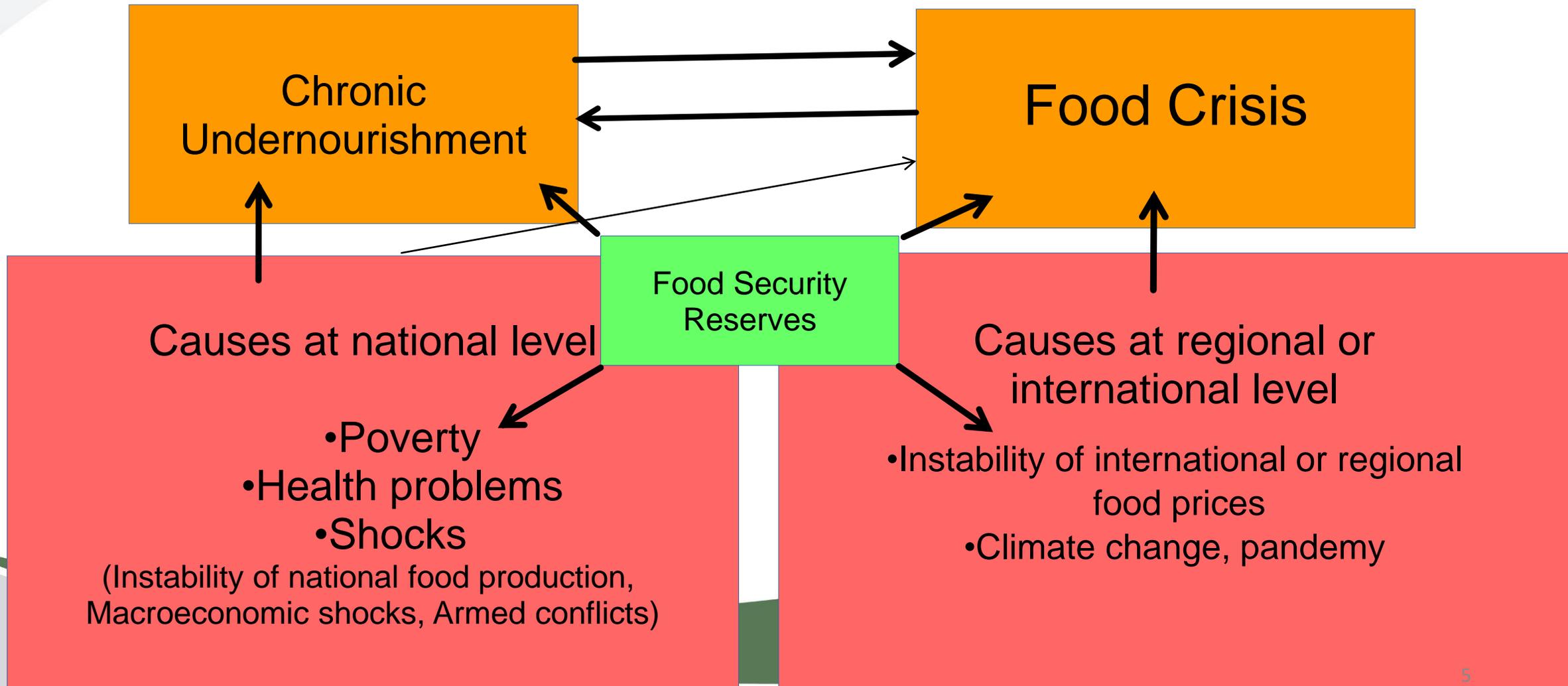


## Food Crisis

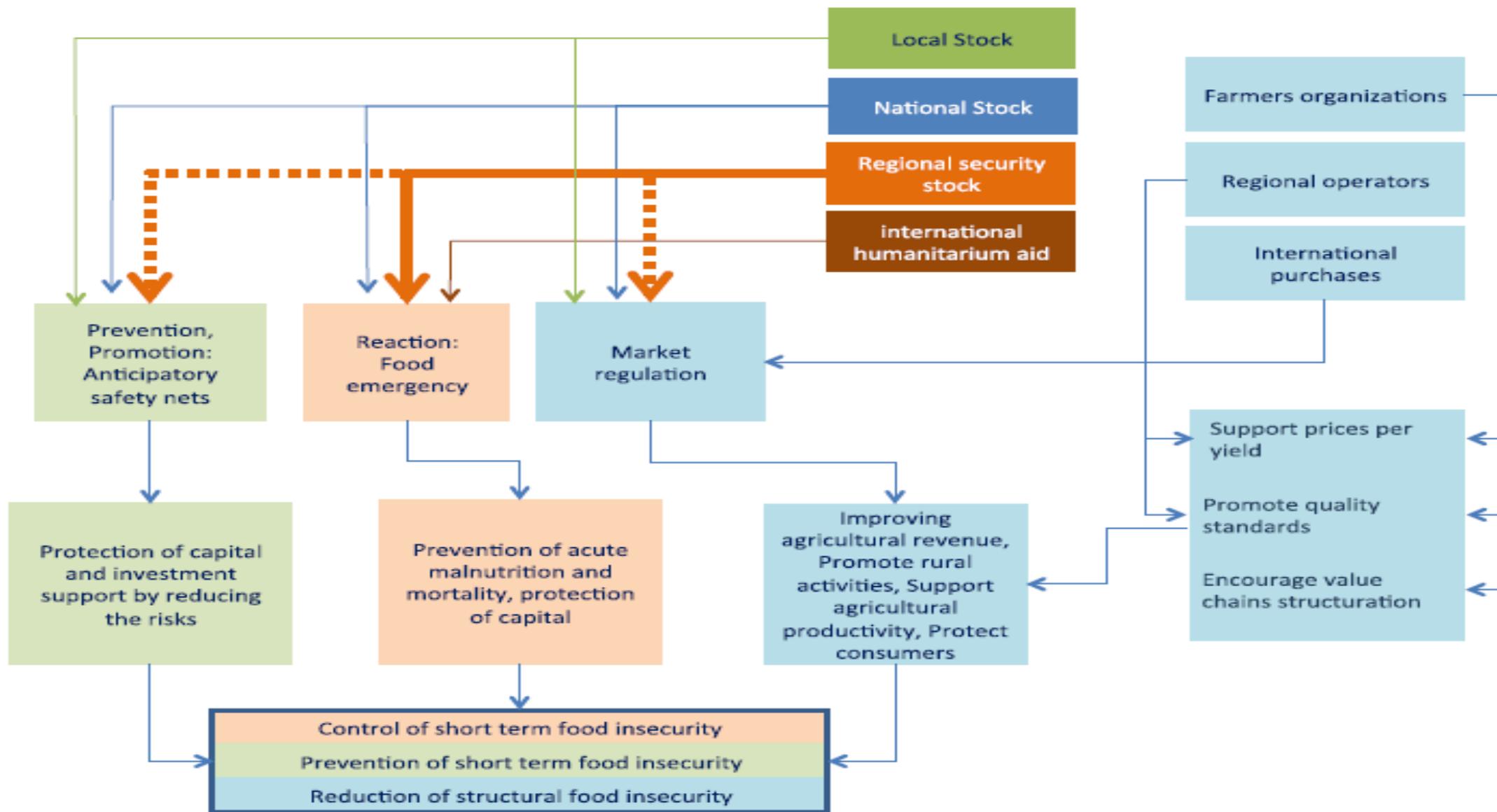
- Collapse in food consumption (level and/or diversity)
  - Concentrated in a specific area (country, region)
    - Affects many persons
- Generate deficiencies in calories or nutrients
  - May have LT consequences on life, health and child development



# Dimensions of Food & Nutrition Security



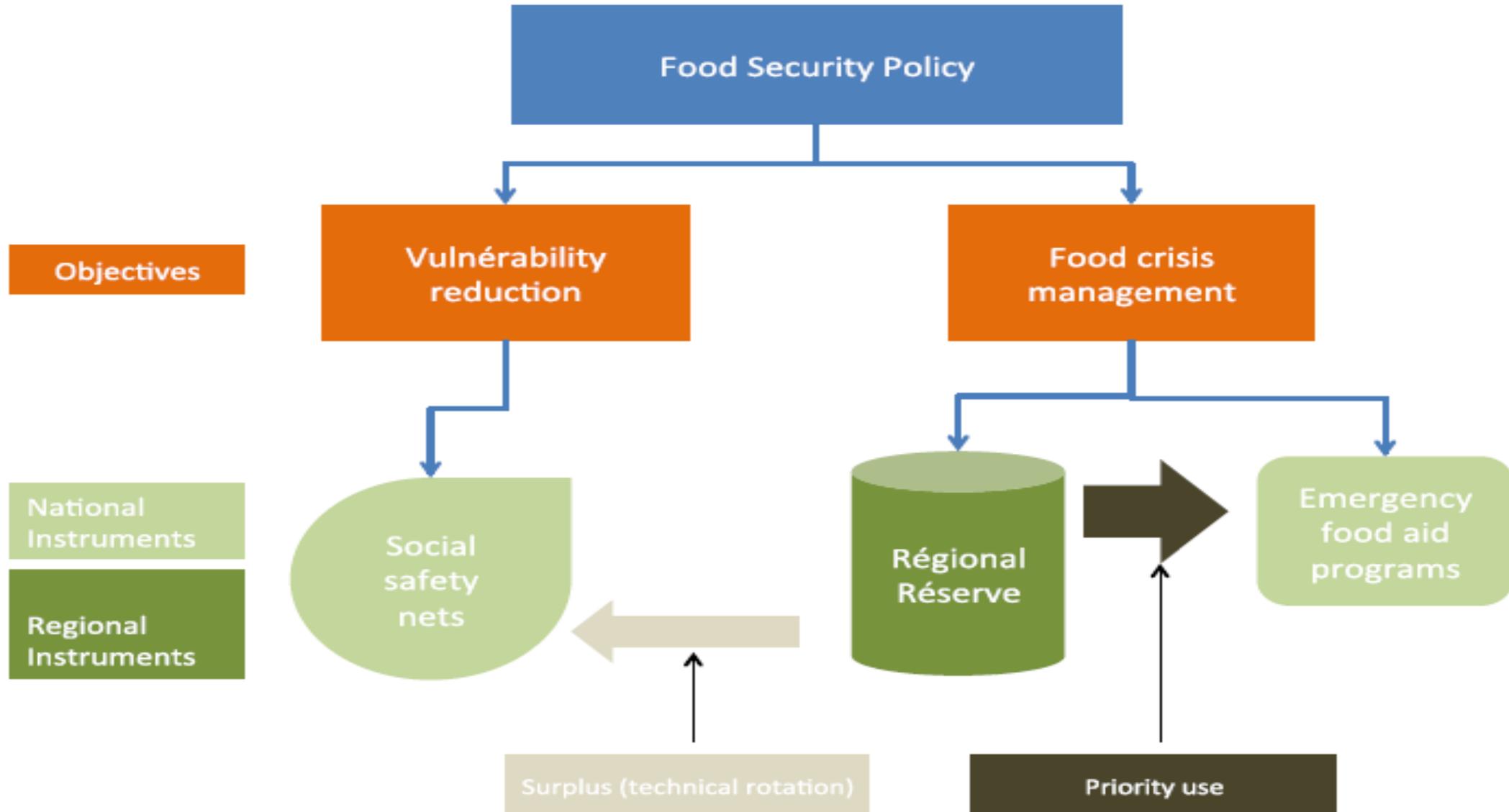
# Relationship between FSR and provision through other National policy priorities



<sup>8</sup>Shahidur Rashid, 2011; Grain Reserves, Social Safety Nets, and Productivity Linkages: Conceptual Issues and Some Empirics from Africa. Prepared for the seminar, Increasing Agricultural Productivity and Enhancing Food Security in Africa, 1-3 November, Addis Ababa, Ethiopia

Source :

# Relationship between FSR Emergency food aid programs and social safety nets



# Dimensions of the FSR

- ▶ short term - contributing to managing food crises and fighting against chronic undernourishment
- ▶ medium term - contributing to more stable production and markets
- ▶ long term -contributing to reduce the deep roots of hunger (poverty, grain accounting for a high share of household expenditures)

## **Food reserves are:**

- ▶ stocks of food products important for FNS
- ▶ held by a public entity

## **FSR exist at different levels**

- ▶ Local
- ▶ National
- ▶ Regional (e.g. : ECOWAS, APTERR (ASEAN+3))
- ▶ International

# FSR to mitigate the food price increase as it complements the measures for regulating import/export

**Rely only on private storage? No because:**

- ▶ private stocks are likely to be insufficient (risky activity, only driven by profit whereas by stabilizing prices storage generates a positive externality);
- ▶ in periods of crisis, private stocks are vulnerable to hoarding behaviours.
- ▶ FSR are therefore useful to complement private stocks:
  - ▶ to increase the level of global grain stocks
  - ▶ to avoid panics and stock hoarding (leverage effect on release of private stocks e.g. food crisis of 2008)
- ▶ But as FR are driven by national (FNS) objectives, they are likely to be undersized regarding the level required for global FNS. Need for supranational solutions:
  - ▶ Donor support, Regional FSR and Enabling international environment

# Widely used

During the 2008 crisis, many developing countries released public grain stocks at subsidised prices in order to protect poor consumers:

- 15 Asian countries (out of 26)
- 13 African countries (out of 33)
- 7 Latin-American countries (out of 22)

# Roles of the FSR

- ▶ **FSR protects vulnerable households** by providing them emergency transfer
- ▶ **FSR reduces tension on market** that may provoke food emergency crisis
- ▶ **FSR contributes to stabilize national and international food markets** & secure enough stocks at the world level to avoid grain price spikes ;

## Other roles of FSR to:

- ▶ **PREVENT CHRONIC FOOD INSECURITY & MALNUTRITION** by providing permanent transfer of food in advance as a security net
- ▶ **ANTICIPATE CHRONIC INSECURITY** e.g. vulnerable households in repetitive food crisis
- ▶ **ANTICIPATE MALNUTRITION** e.g. stunting (high/age) and underweight that have negative long term/immediate impact on children, and the health of milking mothers

## FSR procurement as a means to :

- ▶ **STIMULATE FOOD PRODUCTION**, with non-targeted incentive
- ▶ **ORIENTATE FOOD PRODUCTION** – with incentives targeted on specific production or marketing models

# Risks and assumptions

- ▶ **Trade barrier – lateral agreements to ease business**
- ▶ **Transport and distances – accessible routes**
- ▶ **Political instability**
- ▶ **War and population displacement**

# What needs to be in place ?

- ▶ **RESERVE STOCKS ESTABLISHED** - hard commodities(wheat rice etc.) or
- ▶ **FINANCIAL SUPPORT FOR THE PURCHASE** of food from other reserves
- ▶ **STOCKS PROGRESSIVELY BUILT UP / REPLENISHED** in quantities related to demand in a particular region
- ▶ **STOCKS ARE PROTECTED PHYSICALLY** from destruction or pest/ disease deterioration
- ▶ **FOOD TYPES ARE COMPLIANT** with dietary and cultural norms
- ▶ **RESERVES OF FOOD ARE ACCESSIBLE**, easily and timeously transportable to areas of need
- ▶ **TRANSPORT AND DISTRIBUTION MECHANISMS ARE SECURE**, guaranteed and food in transit is protected - refrigeration etc.
- ▶ **INFRASTRUCTURE FOR THE NETWORKS** of transport is compatible with transport types available – road, rail, air and sea
- ▶ **ENABLING TRADE CONTROLS AND TARIFFS** between countries do not prohibit exchange
- ▶ **SAFETY STANDARDS AND COMPLIANCE** - agreed between MS and processes ensure compliance to standards
- ▶ **CONTROLLABLE AND AFFORDABLE MARKET FOOD PRICES** amongst MS do not outreach affordability

# Costs of feasibility study for development of ECOWAS RPFS

— with EU Support (3 Years)

## SUMMARY OF BUDGET FOR PROJECT PROPOSALS FOR EU'S SUPPORT TO IMPLEMENT THE ECOWAS RPFS

Input Description	Improved Policy Structures		Information Management	Phytosanitary		Agro. Processing		Zoosanitary Standards		Food Quality		PMU		TOTALS			
	WM	US\$		WM	US\$	WM	US\$	WM	US\$	WM	US\$	WM	US\$	WM	US\$		
Int. Consultants	24.5	299,000	1											12	16,800	143.5	1,607,000
Nat. Consultants	61	102,000	9													382	628,000
FAO Tech. Ser.	7.5	97,000	1											3	42,000	57	776,000
ECOWAS Co-ordination	8.5	99,000	9											-	-	47	484,000
Mission Costs	-	40,000												-	36,000	-	188,000
Admin & Support Costs	-	16,000	-											-	42,000	-	176,000
Materials and Equipment	-	30,000	-											-	-	-	561,000
Non-expendable Equipment	-	-	-											-	50,000	-	2,570,000
Contracts	-	-	-											-	-	-	885,000
In Country Travel	-	-	-											-	12,000	-	40,000
Wshops/ Seminars	-	70,000	-											-	-	-	892,000
Consultations	-	95,000	-											-	-	-	380,000
Field Operations	-	150,000	-											-	-	-	535,000
Evaluation																	47,000
Miscellaneous including 4%																	390,760
<b>Grand Total</b>	<b>101.5</b>	<b>990,000</b>	<b>128.5</b>	<b>1,457,000</b>	<b>86.5</b>	<b>1,649,000</b>	<b>39.5</b>	<b>941,000</b>	<b>124.5</b>	<b>1,922,000</b>	<b>134</b>	<b>2,395,000</b>	<b>15</b>	<b>397,000</b>	<b>629.5</b>	<b>10,159,760</b>	

Designing the system and controls and agreeing bilateral and multilateral agreements

**USD \$ 10 Million over three years across 12 countries**

# Set up and operating cost

**Costs are dependant on shape and modus operandi of the FSR :**

- **Integrated approach** : ECOWAS model (15 countries, 850,000 MT in 2020) : US \$10 million (feasibility study/3 years) ; US\$ 33 million/per annum during first 8 years (capital contribution, maintaining and governing cost)
- **Flexible approach**: APTERR + 3 model (14 countries, 787,000 MT): US\$ 4 million (capital contribution);

Total member contribution: US\$ 300,000 per annum for first 5 years (operational cost); Maintaining and governing cost unknown as earmarked stocks, their quality, storage cost, control and processing

(milled form) are under the reponsibility of each country

# What needs to be done in a full feasibility study?

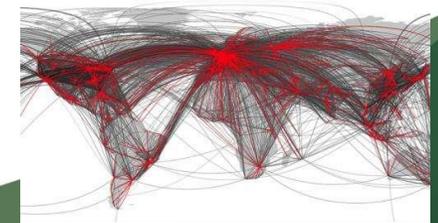
## Assessment to establish appropriate networks and operating systems

- ▶ demographics relative to population size and severity of food shortages;
- ▶ country and regional resources for self-sufficiency production, consumption and surpluses - vulnerability;
- ▶ production capacity, reserve accumulation and restocking capability – including volumes and types of food;
- ▶ storage capacity and quality controls for preserving stocks;
- ▶ country/regional capacity and capability to respond
  - existing channels for distribution etc.; ability to distribute
- ▶ access to reserves whether through government, donor, charity or other forms of humanitarian aid;

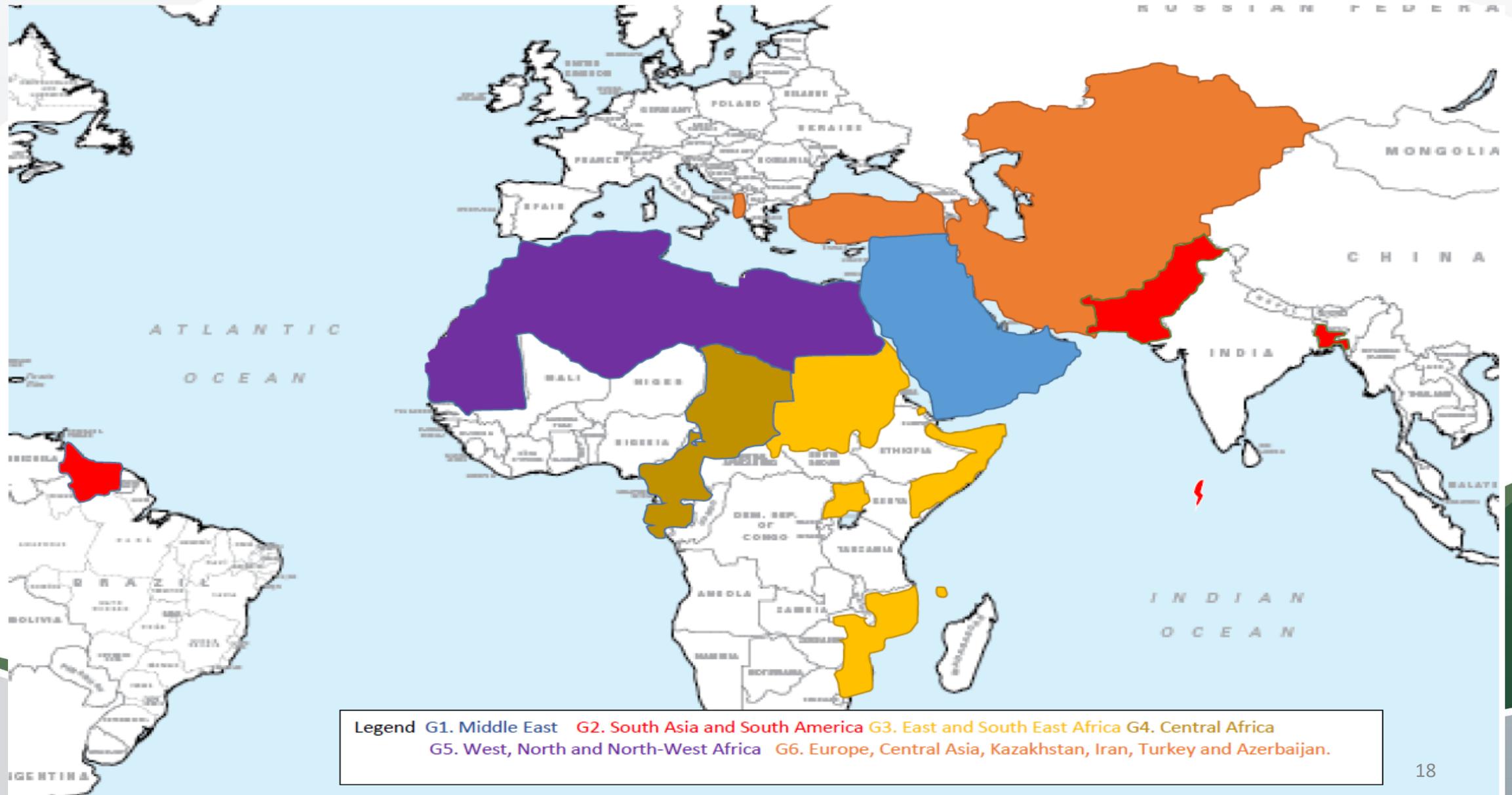


# And ....

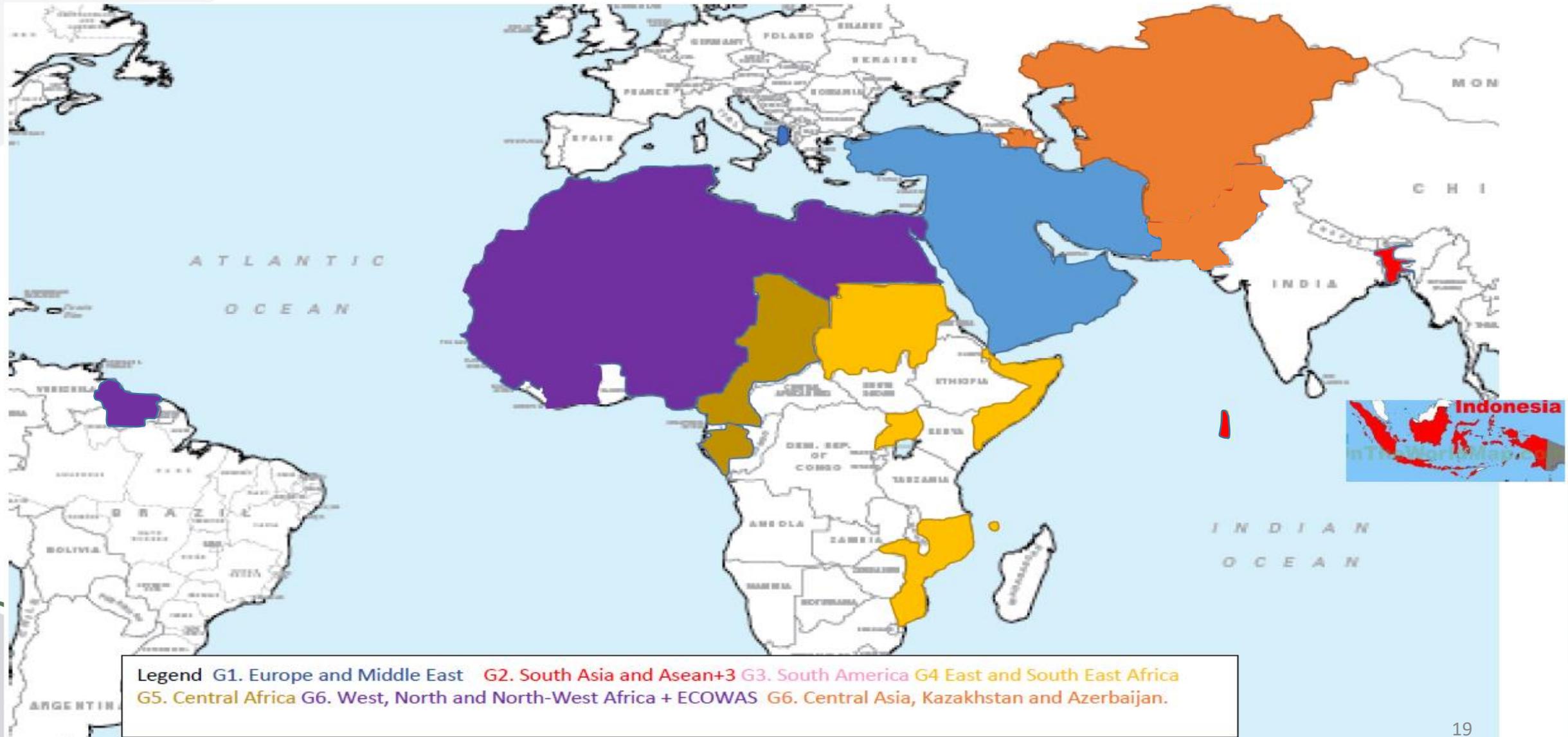
- ▶ quantification of real-time statistical data analysis and data sharing - existing or redeveloped databases;
- ▶ import/export volumes relative to the net provision of food per capita (food balance);
- ▶ establish or ratify existing trade relationships and cross border tariffs/ export regulations; **ease of access through related distribution channels**
- ▶ current networks for distribution - transport/ transporters capacity for rapid distribution and in-transit food 'quality' protection;
- ▶ establish relevant/ 'ideal' location of reserves to facilitate supply/demand for coverage area. (country- region - group)



## Options for regional groups — based on geography without MS covered by ECOWAS and ASEAN+3



# Group options including ECOWAS and ASEAN+3



# State of Food Security – Vulnerability



## OIC Country Profile for Participation in Reserves

Main food product

Per capita consumption, kg /  
year cereals

Production per capita, kg

Net import-export, per capita,  
kg

Stocks in the country per  
capita, kg

GDP per capita (PPP), USD

Stunting children, %

Position in Hunger index and  
food security Index



Countries with high incomes, high  
production and export, low food  
deficit

Average income, medium level of  
food deficit and self-sufficiency

High-or middle income, low level of  
food deficit and self-sufficiency

Low-income countries with high  
food deficit

# How are the 'earmarked' tonnages calculated?

- Complex formula recommended by FAO and the United Nations World Food Programme. (Takes to account the dimensions as in slide 20- previous slide)

-V is the country profile rating Red 1, Yellow 2, Orange 3 and Red 4

-M is the Average annual ending carry over stock, kg per capita

- C is the population

- contribution of about 2 kg per capita, but not more than 10% of annual average ending MS stocks with a minimum of 2000 tons but not more than 60,000 tons.

MS with a 'red' profile contribute about 0.2 kg per capita, but not less than 2-3 thousand tons.

MS in a special situation e.g. Island countries (Maldives, Comoros), or in crisis and wars (Palestine, Afghanistan, Sudan, Somali and others) do not contribute to participate in the system, but other MS may create reserves on their behalf

$$=IF(V=1,MAX(0.2/1000000*C,3),IF(MIN(2/1000000*C,0.1*M/1000000*C)>2,MIN(2/1000000*C,0.1*M/1000000*C),2))$$

# Regional Groups and Tonnage Reserve

Regional FSR Combined Vulnerability	Countries/ Individual Vulnerability	Proposed Storage Volume (000 Tons)	Type of food commodities	Total volume (000, thousand tons)
1 Middle East (12)	Qatar	2	wheat	126
	Palestine	0		
	Yemen	0		
	Syria	**		
	Jordan	21		
	Iraq	8		
	Lebanon,	0		
	Oman,	9		
	Bahrain	3		
	Saudi Arabia,	60		
	UAE,	19		
	Kuwait,	4		
2 South Asia (3)	Bangladesh,	33	rice, wheat, corn	76
	Pakistan,	43		
	Maldives	0		
addition of ASEAN+3	Malaysia	60	Rice	122
	Indonesia	60		
	Brunei Darussalam	2		
2 South America* (2)	Guyana,	2	rice, corn cassava,	4*
	Suriname	2		
3 East and Southeast Africa (6)	Comoros,	0	rice, millet, wheat, cassava, lentils, corn	66
	Sudan	0		
	Somalia	0		
	Djibouti	0		
	Mozambique	58		
	Uganda	8		

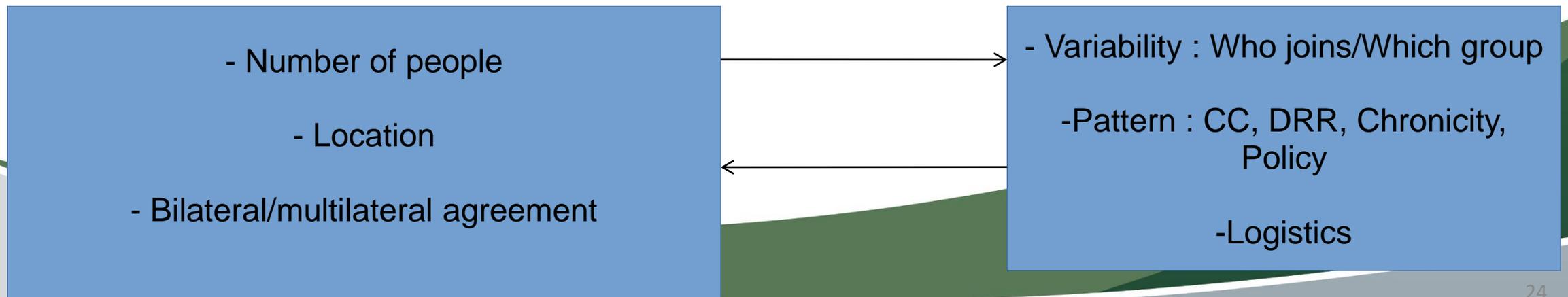
\*\* Insufficient FAO data etc. \* South America isolated due to distance from another continent

# And.....

Addition of ECOWAS	Benin	23	Rice, millet, wheat, Cassava, corn	97
	Burkina Faso	4		
	Cote d'Ivoire	5		
	Gambia	3		
	Guinea	3		
	Guinea Bissau	3		
	Mali	4		
	Nigeria	39		
	Niger	4		
	Senegal	3		
	Sierra Leone	3		
	Togo	3		
	4 Central Africa (3)	Chad		
Cameroon		49		
Gabon		2		
5 West, North and Northwest Africa (6)	Mauritania,	3	rice, wheat	206
	Libya,	0		
	Tunisia	23		
	Egypt	60		
	Algeria,	60		
	Morocco	60		
6 Europe, Central Asia, Kazakhstan, Iran, Turkey and Azerbaijan (10)	Albania	6	wheat	285
	Afghanistan	0		
	Tajikistan	18		
	Kyrgyzstan	13		
	Uzbekistan	60		
	Azerbaijan	20		
	Turkmenistan	11		
	Iran	60		
	Kazakhstan	37		
	Turkey	60		

# Determining Distribution Networks:

- Example Ecowas: 4 storage sites were selected based on
  - (i) Existence of storage capacity (storage and human and institutional capacity for reserve management by national infrastructures);
  - (ii) Proximity to expected places of need and their geographic situation (96 % of the physical Regional Reserve are in landlocked East and Central Sahelian countries);
  - (iii) 2 sites have access to the ports of Tema and Dakar.



# The expected result

