

National Food Security of Sri Lanka: Past, present, strategies, achievements and challenges



Nimal Dissanayake
Additional Secretary (Development)
Ministry of Agriculture
Sri Lanka

Food Security..

- When all people at all times , have physical, social and economic access to sufficient , safe and nutritious food to make their dietary needs and food preferences for an active and healthy life ..(Clay, 2002)



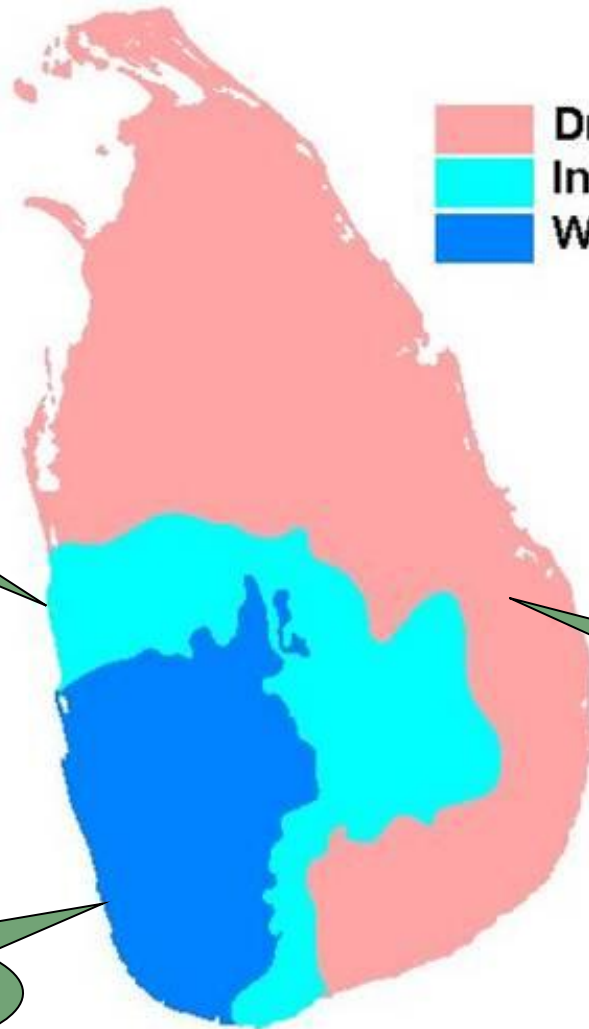
Three Major Climatic Zones of Sri Lanka



IZ
RF 1750-2500 mm



WZ
RF > 2500 mm

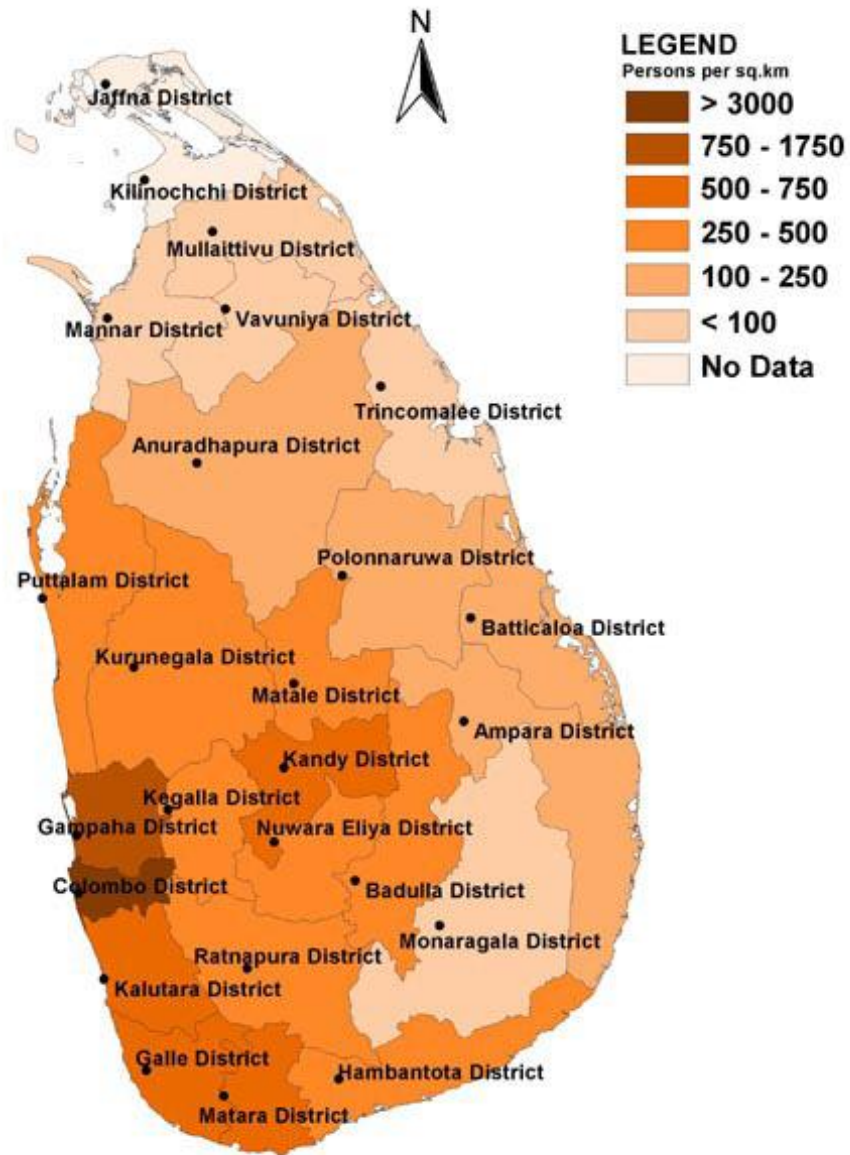


Dry Zone
Intermediate Zone
Wet Zone



DZ
RF < 1750 mm

POPULATION DENSITY



50 0 50 100 Miles

Sri Lanka: basic statistics related to food security

- Population: 20 + million
- Population density (2012) 325/Sq. km (54th)
- Average food ratio (2009): 30-60%
- Average household income (2009) – mean 3300 us \$, median – 2200 us \$
- Labor force in Agriculture: 60%
- Lowland paddy extent : 0.82 million ha
- Highland for other food crops 1.2 million ha

Sri Lanka : basic statistics related to food security

- Income distribution (Gini coefficient of household income 2009-2010) : 0.49
- Average daily kilo calorie intake (2010): 2200
- Poverty head count index (2010): 8.9
- Population growth rate: 1%
- Per capita income rise 10-15%

Household Monthly Food Expenditure (%)

Major food category	Sri Lanka (%)	Urban (%)	Rural (%)	Estate (%)
Cereals	19.8	14.0	20.2	31.7
Prepared foods	10.6	15.5	10.0	5.9
Pulses	4.2	3.6	4.2	6.6
Vegetables	7.6	6.3	7.8	8.0
Meat	3.9	5.4	3.7	3.2
Fish	8.4	9.8	8.4	3.5
Dried Fish	3.8	2.6	4.1	2.6
Coconut	4.8	3.6	5.1	4.2
Condiments	9.0	8.1	9.2	9.4
Milk & Milk foods	8.4	11.0	8.0	6.6
Fats & Oils	2.4	2.2	2.4	2.8
Sugar, Juggery, Treacle	3.4	3.1	3.5	2.8
Fruits	3.1	3.7	3.1	1.6
Other food items	10.6	11.2	10.4	11.0

Source: HIES, Department of senses and statistics Sri Lanka 2009-2010

Average monthly Household income

Sector/Province	Mean (Rs.)	Median (Rs.)	Household Size
Sri Lanka	35,495	24,106	4.0
Urban	46,196	31,312	4.1
Rural	34,329	23,641	3.9
Estate	25,649	17,879	4.3
Province			
Western	44,955	30,414	4.0
Central	35,100	22,733	3.9
Southern	31,940	22,231	4.0
Northern	*	*	*
Eastern	19,710	17,433	4.4
North Western	32,120	22,371	3.8
North Central	35,235	27,564	3.7
Uva	27,739	21,187	4.1
Sabaragamuwa	33,865	21,676	3.9

Source: HIES, Department of senses and statistics Sri Lanka 2009-2010

Composition of Exports

Category	2011		2012	
	Value US\$ million	Share %	Value US\$ million	Share %
Agricultural Exports	2,527.8	23.9	2,331.5	23.9
Tea	1,490.9	14.1	1,411.9	14.4
Rubber	206.4	2.0	125.1	1.3
Coconut	266.0	2.5	208.9	2.1
Spices	235.2	2.2	256.1	2.6
Vegetables	16.9	0.2	13.3	0.1
Unmanufactured tobacco	38.4	0.4	42.2	0.4
Minor Agricultural Products	88.7	0.8	76.0	0.8
Sea Food	185.3	1.8	198.0	2.0
Industrial exports	7,991.7	75.7	7,371.2	75.4
Mineral exports	32.9	0.3	61.3	0.6
Unclassified	6.5	0.1	9.6	0.1
Total export	10,558.8	100.0	9,773.5	100.0
Annual Average Exchange Rate	110.57		127.60	

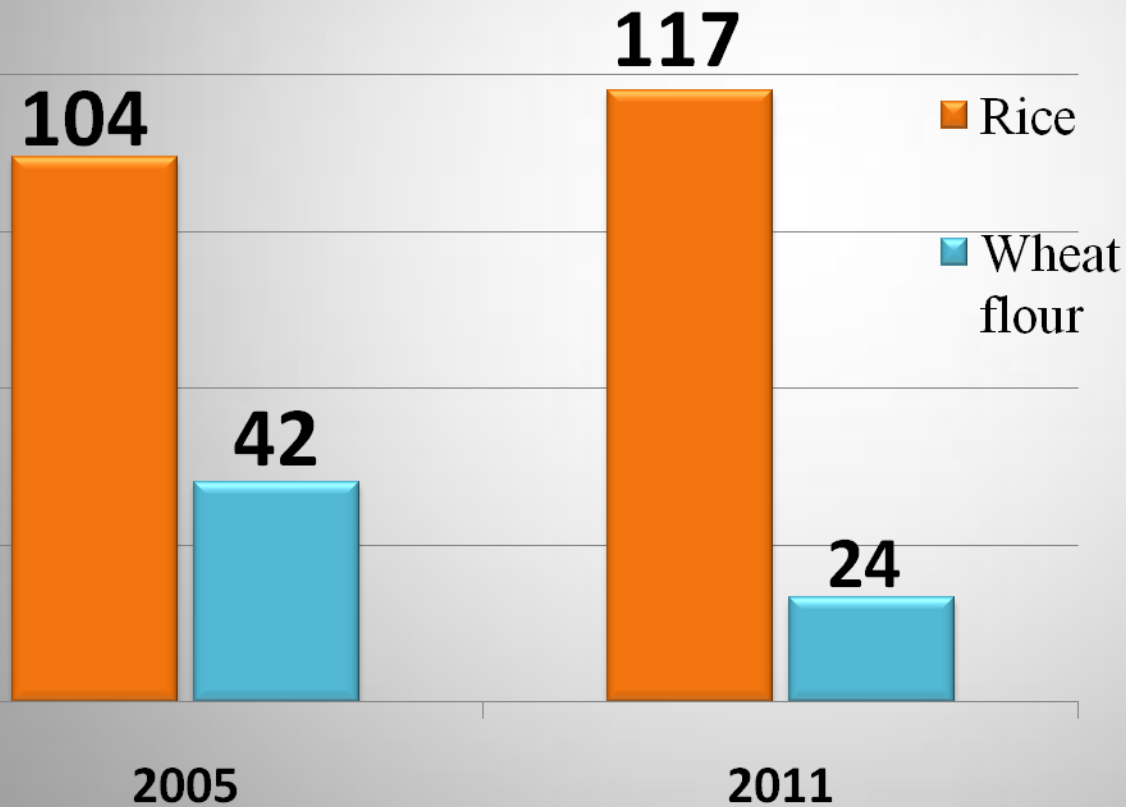
Composition of Imports

Category	2011		2012	
	Value US\$ million	Share %	Value US\$ million	Share %
Consumer Goods	3,653.6	18.0	2,995.2	15.6
Food and Beverages	1,566.9	7.7	1,304.4	6.8
Rice	18.4	0.1	24.4	0.1
Sugar and Sugar Confectionary	427.6	2.1	346.7	1.8
Dairy Products	345.2	1.7	307.3	1.6
Lentils	116.9	0.6	69.0	0.4
Other	658.8	3.3	557.0	2.9
Other Consumer Goods	2,086.7	10.3	1,690.8	8.8
Intermediate Goods	12,275.3	60.6	11,569.9	60.3
Investment Goods	4,286.1	21.1	4,589.8	23.9
Unclassified Imports	53.9	0.3	27.7	0.1
Total Imports	20,268.8	100.0	19,182.6	100.0
Annual Average Exchange Rate	110.57		127.60	

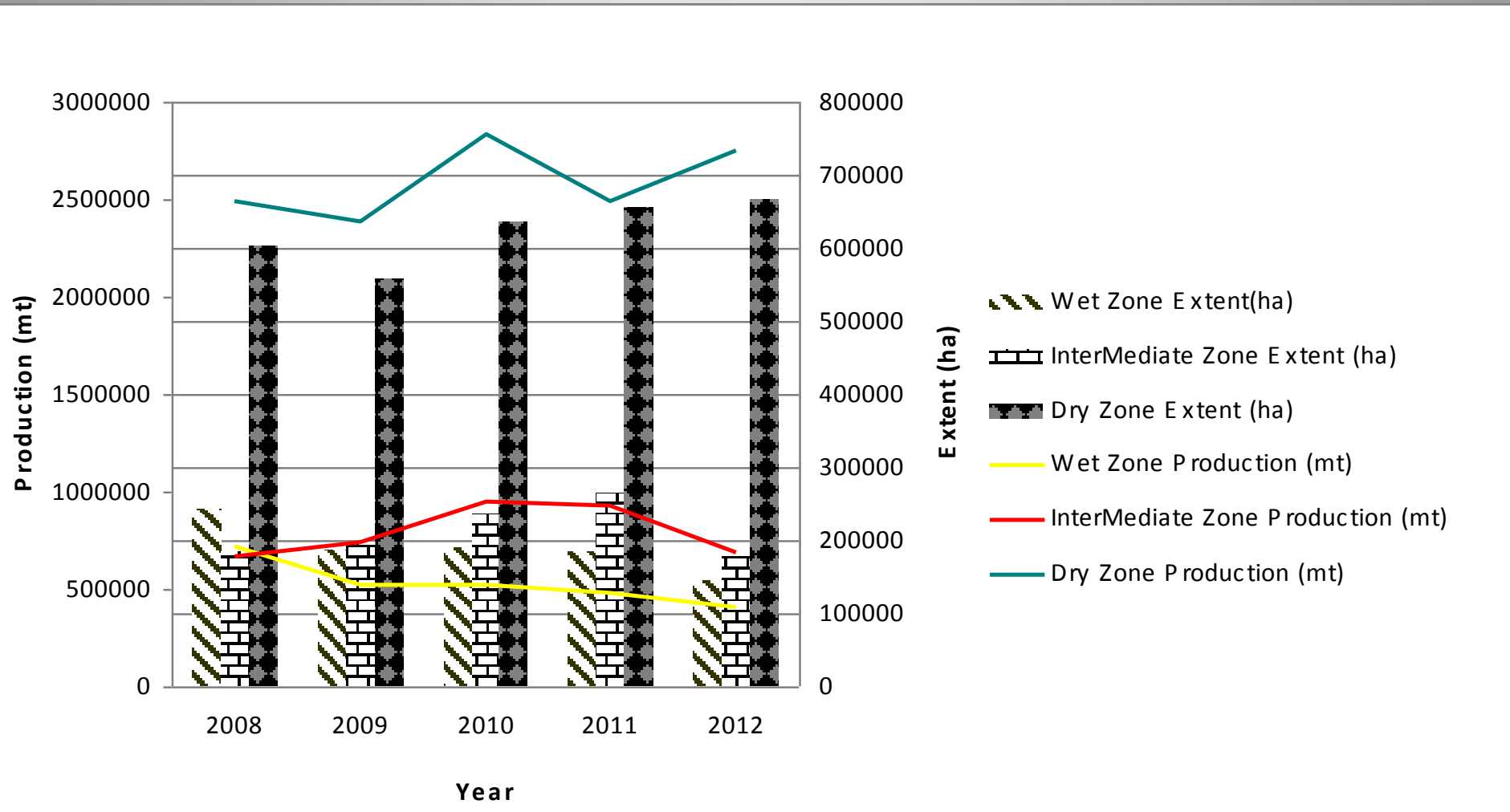
Trends of Rice Extent, Annual Production, Average Yield, Rice Imports and Population over past decades (1940 - 2011) in Sri Lanka

Decade	Population (millions)	Production (ton. millions)	Asweddumize d Extent (ha. millions)	Yield (t./ha) National Average	Rice Imports as a % of Requirement
1940	6.0	0.26	0.39	0.65	60
1950	7.5	0.60	0.41	1.56	50
1960	9.9	0.90	0.51	1.86	40
1970	12.5	1.62	0.61	2.63	25
1980	14.7	2.13	0.70	2.94	10
1990	16.3	2.50	0.70	3.18	5
2000	18.5	2.86	0.72	3.86	<1
2010	20.2	4.10	0.72	4.21	<1
2011	20.8	3.87	0.97	3.99	<1

Per-capita Consumption of Rice and Wheat flour (kg/head/yr)



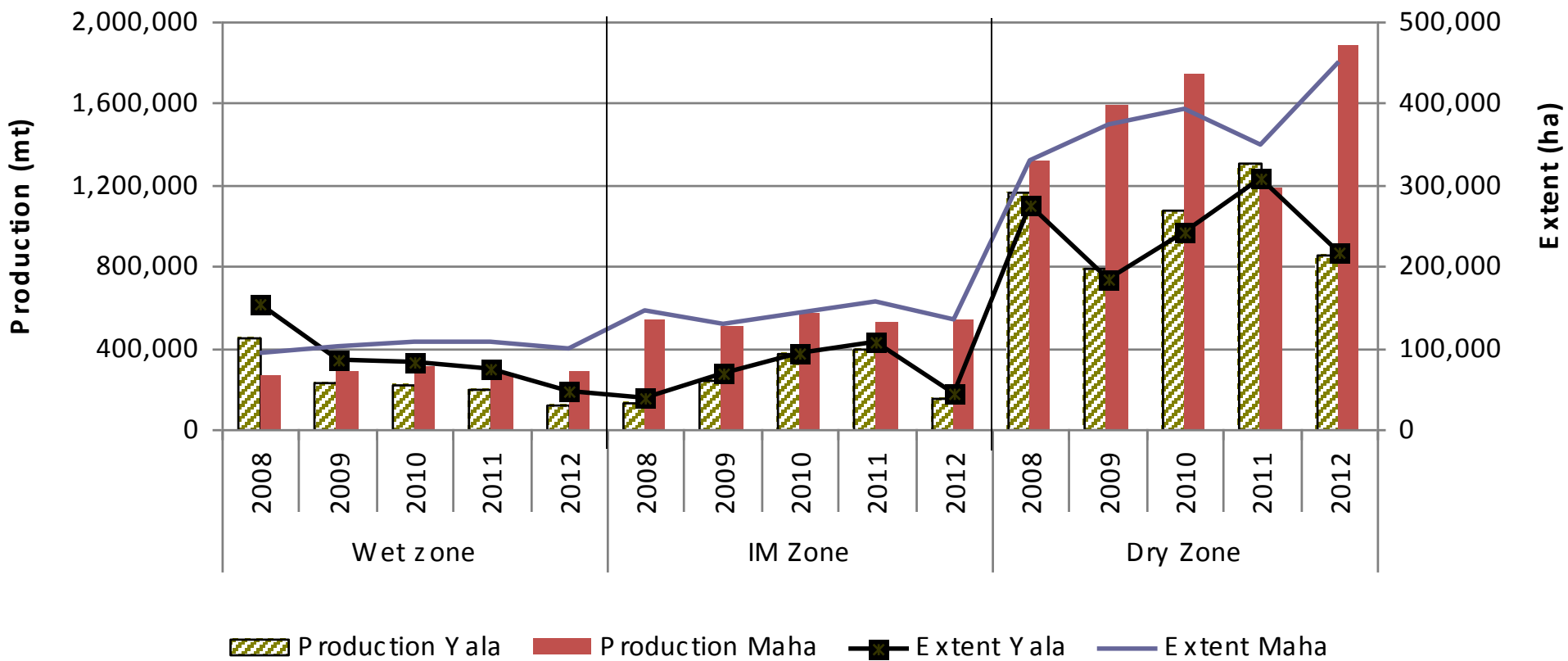
Paddy Production & Extent – (2008-2012) in Major Agro Ecological Zones



Source: Department of Census & Statistics, 2008-2012

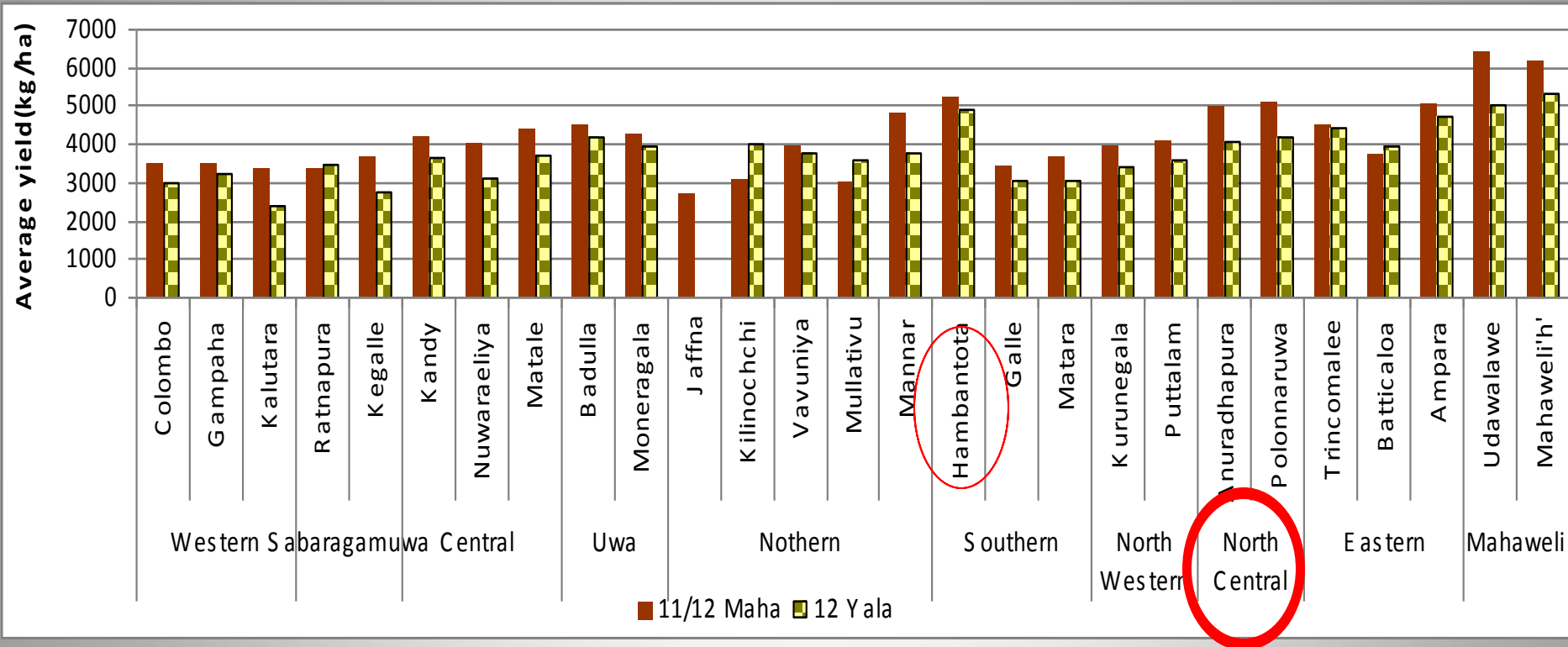
Paddy Production & Extent – (2008-2012)

Yala & Maha



Source: Department of Census & Statistics, 2008-2012

Province/District-wise Average yield - 2012



Field crop Production Programme during 2005 - 2012 under government involvement

Crop	Year 2005		Year 2012		% increase in pro.	% Pro. of National Reqt.
	Extent (ha)	Production (mt)	Extent (ha)	Production (mt)		
Maize	28,404	41,804	59,529	202,315	384	100
Green gram	9,643	8,997	20,150	18,945	111	71
Gingelly	9,643	6,161	15,558	12,435	102	99
Ground nut	10,918	9,034	11,609	21,953	143	92
Red onion	5,790	53,729	6,132	73,970	38	91
Big onion	4,552	55,552	5,386	83,561	50	36
Finger millet	6,207	6,447	5,195	5,984	-7	
Black gram	6,210	6,923	10,842	10,180	47	75

Strategies for increasing OFC Products

- Promote crop production in well-drained paddy fields
- Cultivate uplands during wet season, during dry season under irrigation



Regions for OFC crops specialization



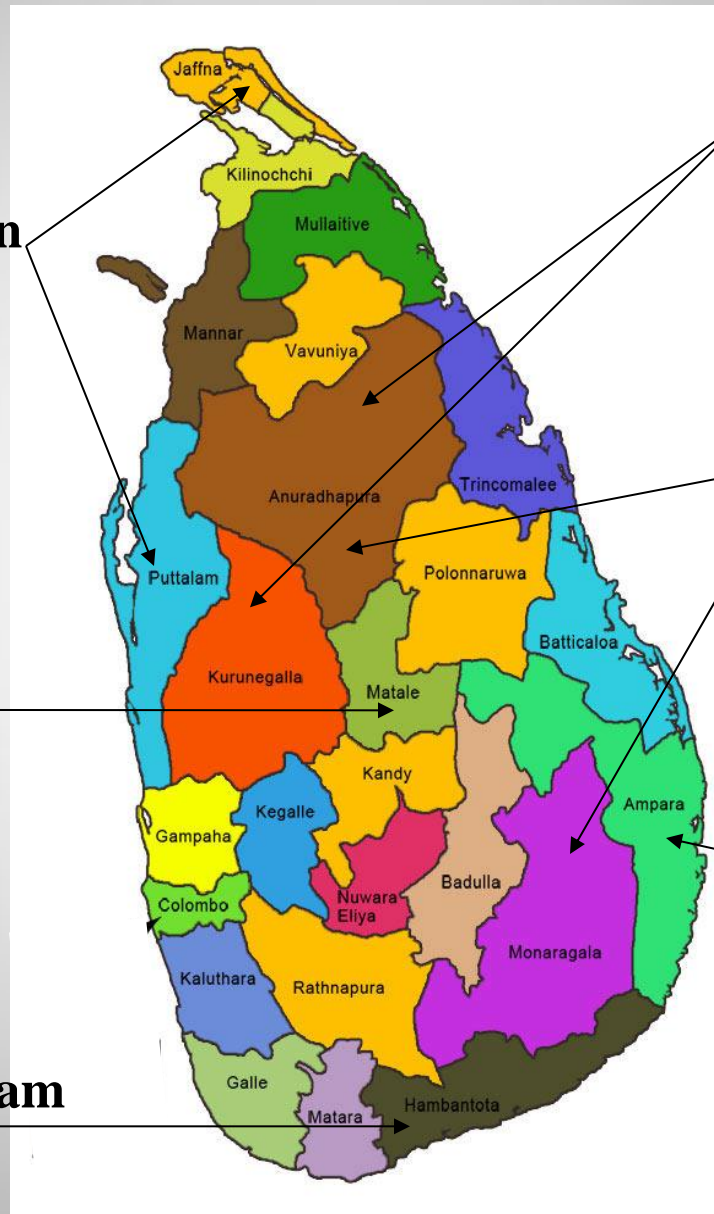
Red onion



Big onion



Green gram



Soy bean



Maize



cowpea



Fruits and Vegetables

- Self-sufficient in many major fruits (banana, papaw, pineapple, mango)
- Depend on few imports – grapes, oranges, apple



Fish Production

Metric Tons'000		
Sub- Sector	2011(a)	2012(b)
Marine (c)	385	417
Aquaculture and inland Fisheries	60	69
Total	445	486

(a) Revised

(b) Provisional

(c) Coastal and deep see sector

Source: Annual Report 2012-Central Bank Of Sri Lanka

Livestock sector Statistics

Sub Sector	2011(a)	2012(b)
1.National Herd(No.) (mn)	1.6	1.6
Neat Cattle	1.2	1.2
Buffalo	0.4	0.4
2.National Milk Production(mn litres)	258.3	299.3
Cow Milk	203.5	237.6
Buffalo Milk	54.8	61.6
3.Milk Products(mn litres)	21.4	29.3
4. Producer Price-Cow Milk (Rs./litre)	50.0	50.0
5. National Egg Production (No) (mn)	1185.3	1457.1
6.National Poultry Meat Production(mt'000)	116.8	122.5

Source: Annual Report 2012-Central Bank Of Sri Lanka

Food Production Policies

- Foods that can be produced entire requirement – Rice, Maize, Soy bean, Green gram, Black gram, Cowpea, Gingerly, Finger millet
- Foods that can be produced only partial requirement – Big onion, potato, sugar, some fruits
- Foods that need to be entirely imported – Wheat flour, red lentils, garlic
- Milk products – depend on imports
- Meat products – not self-sufficient



Government Supporting Schemes for Increasing Food Production

- Research and Development in food crops
- Guaranteed price scheme
- Fertilizer subsidy schemes for all crop production
- Quality basic seed production
- Huge investments in irrigation scheme management
- Import duty/ taxes/ Cess- when and where necessary to help local producers

Issues in Food Production

- High cost of production
- Labour shortage and high wages
- Seasonal production depend on rainfall and drought period – price fluctuation
- High cost of storage facilities
- Low processing facilities and value addition
- Geographical limitations for crop production
- Poor dissemination of production and protection technologies
- Ignorance of purpose about the value of consumption of fruits and vegetables for healthy life
- High cost of transport and wastage

Government programs for improving food security

- Samurdhi program- 2 million household below poverty line provided with 2030 calorie requirement
- Thriposha program- supplementary food provision for low income mothers with children of less than one year
- School mid day meal program- 500,000 children in 6440 schools with 600-800 calorie meal

Recommendations for Future Food Security

- National food security has to be handled with a combination of domestic food production and trade
- Transparent trade policies and acquisition of new technology for food production and utilization
- Micro level food security should be handled through direct government intervention
- Information generation through research and transfer of the same to the policy makers
- Social interventions and nutritional education to assure intra-household food security
- In situ production of diverse traditional food crops



Thank you