

National strategy for agriculture in Romania - Horizon 2035

Cecilia ALEXANDRI

Camelia GAVRILESCU

Lucian LUCA

Dan-Marius VOICILAS

Institute of Agricultural Economics – Romanian Academy
Bucharest, ROMANIA

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ROMANIA'S DEVELOPMENT STRATEGY
FOR THE NEXT 20 YEARS***

Food security - analytical approach

- **Two levels**

1. Food security at **macro-economic** level refers to the capacity of countries to provide sufficient food for their populations
2. Food security at **micro-economic** level is important as the nutritional risks can be perceived at this level

- **Four dimensions of food security:**

1. Food **availability**
2. **Stability** of agricultural and food supply
3. Food **access**
 - in quantitative, qualitative, safety terms and in conformity with the individual dietary and socio-cultural customs
4. **Utilization of food**
 - related to the individual food behaviour (individual desire to have a healthy diet)

Food and nutrition security	MACRO-ECONOMIC level	World
		Region
		Country
	MICRO-ECONOMIC level	Household
		Individual

Determinants of food security

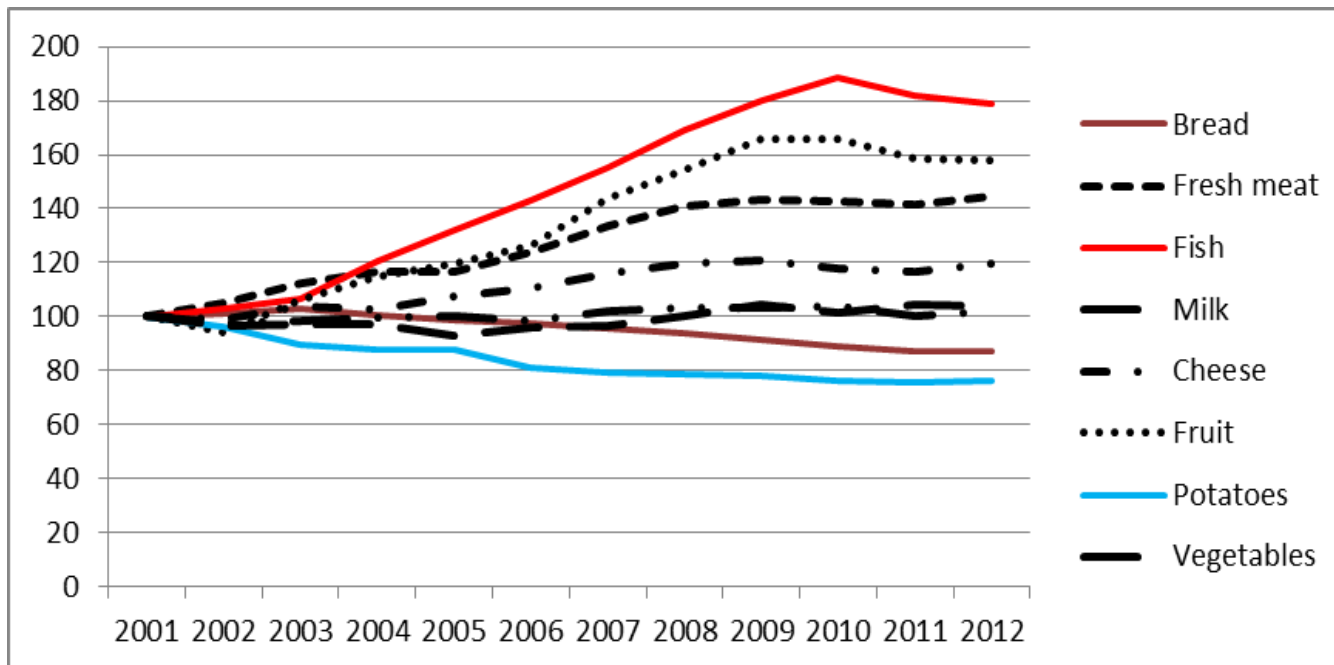
I. Food availability

I. Food availability (1/2)

Low level of domestic agricultural production **self-sufficiency** and existence of long-term deficits in important groups of products: meat, milk, vegetables, fruit and fish.

In 2013, the self-sufficiency level of domestic agricultural production was: -
152% in cereals 95% in vegetables
79% in fruit 94% in dairy
82% in meat 17% in fish.

Food consumption evolution in the economic growth period 2001-2012 (%)



I. Food availability (2/2)

Romania is a country with a less developed agricultural and food sector, with **significant productivity gaps compared to the developed countries**, which will be gradually recovered on medium or long term.

The gaps appear at the level of productivity per person employed in agriculture. The *value added per person employed in agriculture (AWU)* represents 29% from the *European level*.

The **extremely fragmented agrarian structure** and the large number of farms make it difficult for the agricultural products to cross the supply chains mainly in the sectors of **vegetables, fruit and dairy products**. The **absence of farmers' associations** also amplifies this situation.

According to the General Agricultural Census of 2010:

- 39% of UAA is operated by farms < 10 ha,
- 12% of UAA ► 10 to 100 ha
- 49% of UAA ► more than 100 ha

Total number of farms - over 3.8 million.

Determinants of food security

II. Food stability

II. Food stability

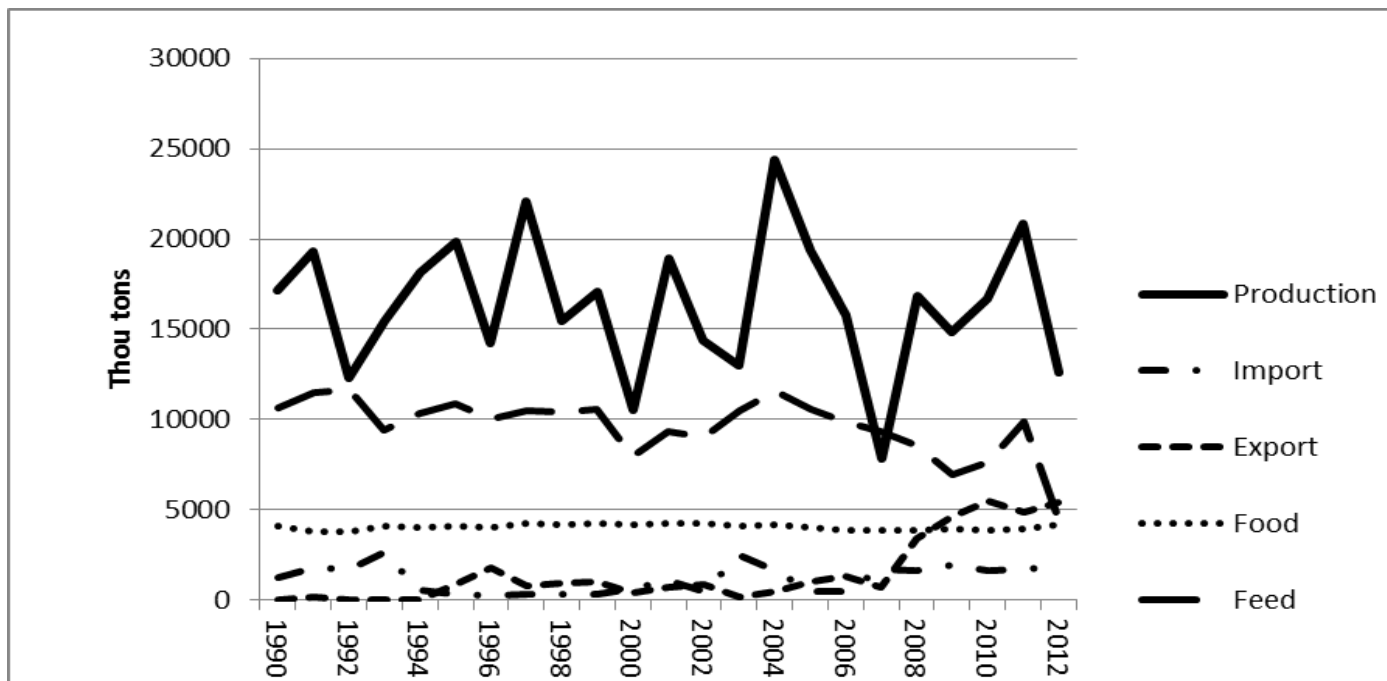
1. Crop production features **high volatility** in Romania, mainly in the case of grain production.

The variation coefficient for grain production (2004-2012):
 Romania: 27.4%
 Poland: 8.95%
 France: 5.80%

2. **Human consumption dependency on imports (HCDI) is high** in the case of grains in certain years and in soybean, sugar, meat, fish and fruit in most years.

HCDI is calculated as ratio of imports to domestic supply.
 Values of HCDI for the period (2001-2011): Meat -25.5%
 Soybeans -25.8%
 Fruit - 16.8%

Evolution of cereal production, import, export and consumption in Romania



Determinants of food security

III. Food access

III. Food access (1/3)

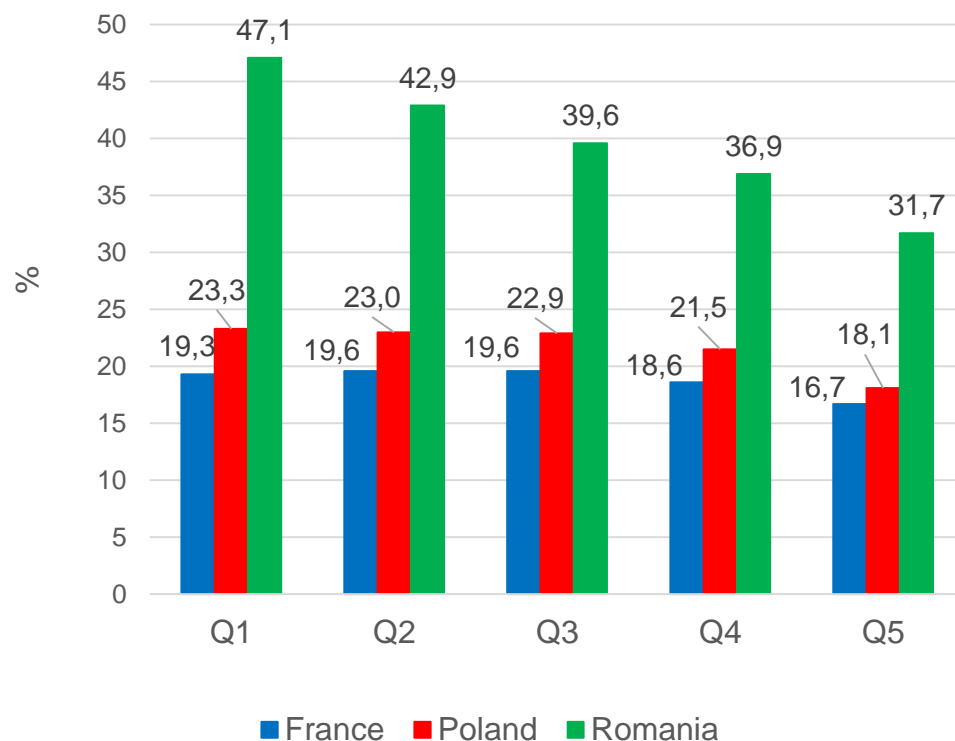
Population's access to food and nutrition quality are constrained by:

- the **low incomes** in the case of certain large population categories,
- the **income gaps** between residence areas,
- by **poverty** (in general)

III. Food access (2/3)

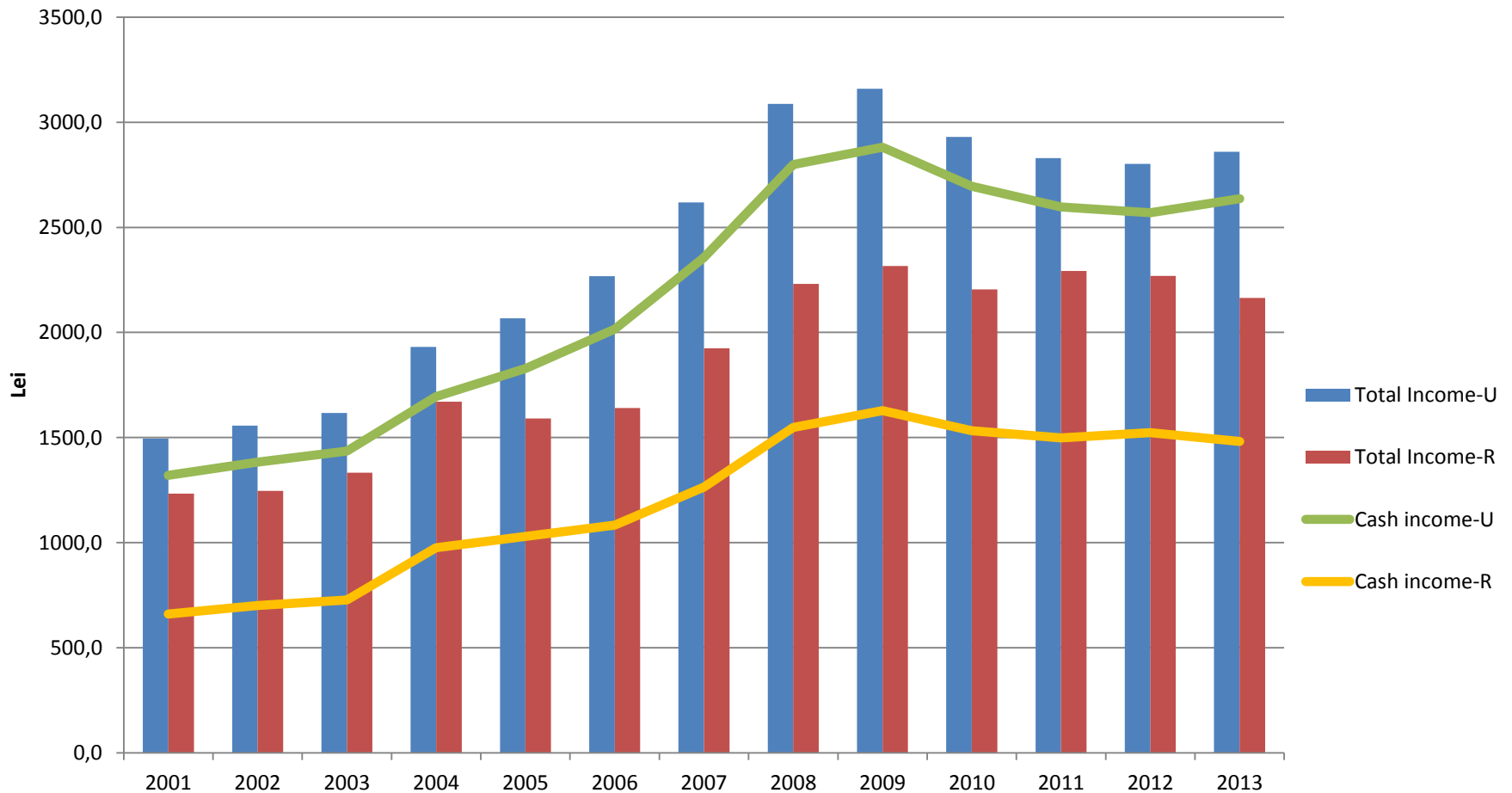
Share of food expenditures in total consumption expenditures, per total and by income quintiles (Q), in certain EU Member States (2010)

Average indicators by household	France	Poland	Romania
Total consumption expenditures (euro)	30379	11052	5514
Total consumption expenditures (PPS)	27627	18325	9623
Food expenditures (PPS)	3884	5069	3856
Share of food expenditures (%)	18.3	21.0	37.4



III. Food access (3/3)

Household income in urban (U) and rural (R) areas in Romania
(constant prices 2013, HBS data)



Determinants of food security

IV. Utilization of food

IV. Utilization of food (1/4)

Poor food consumption in terms of quality :

- **high** share of calories from **cereals and potatoes**
- **low** intake of **animal protein**



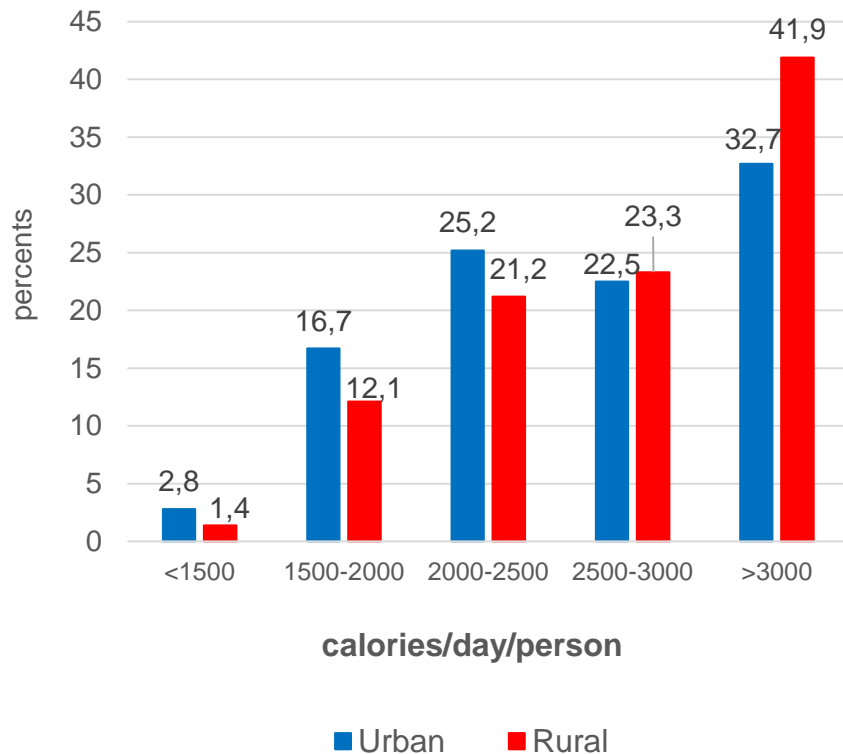
Nutritional risks for the vulnerable categories (*under the poverty threshold and social exclusion*):

- **low income groups**
- **rural population**
- **rroma population**

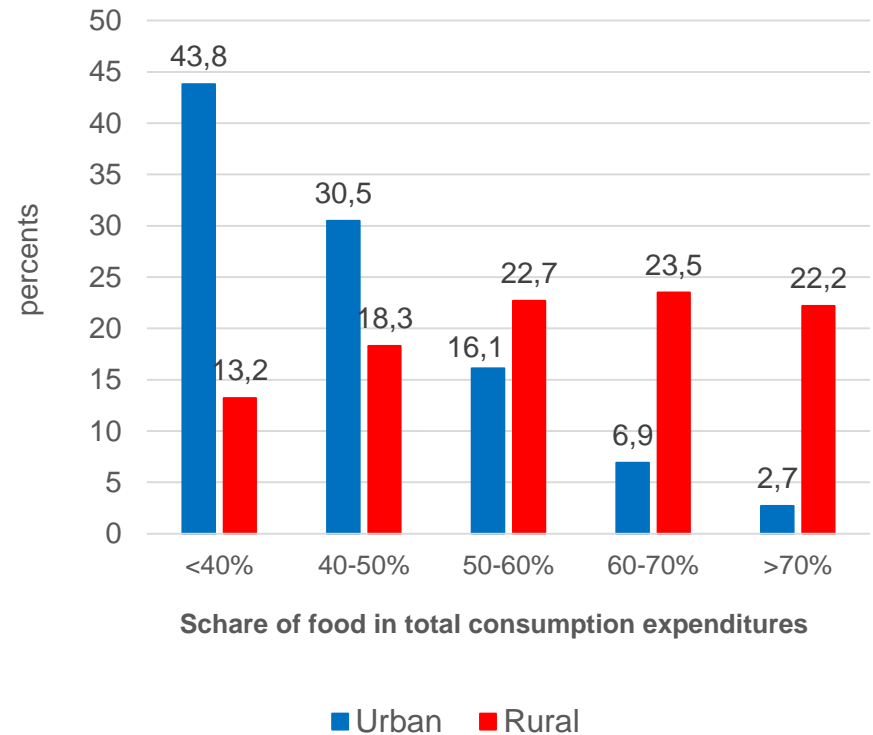
IV. Utilization of food (2/4)

Food consumption and share of food expenditures by residence areas (1st quarter 2011)

Distribution of households by food consumption expressed in calories



Distribution of households by the share of food expenditures in total consumption expenditures

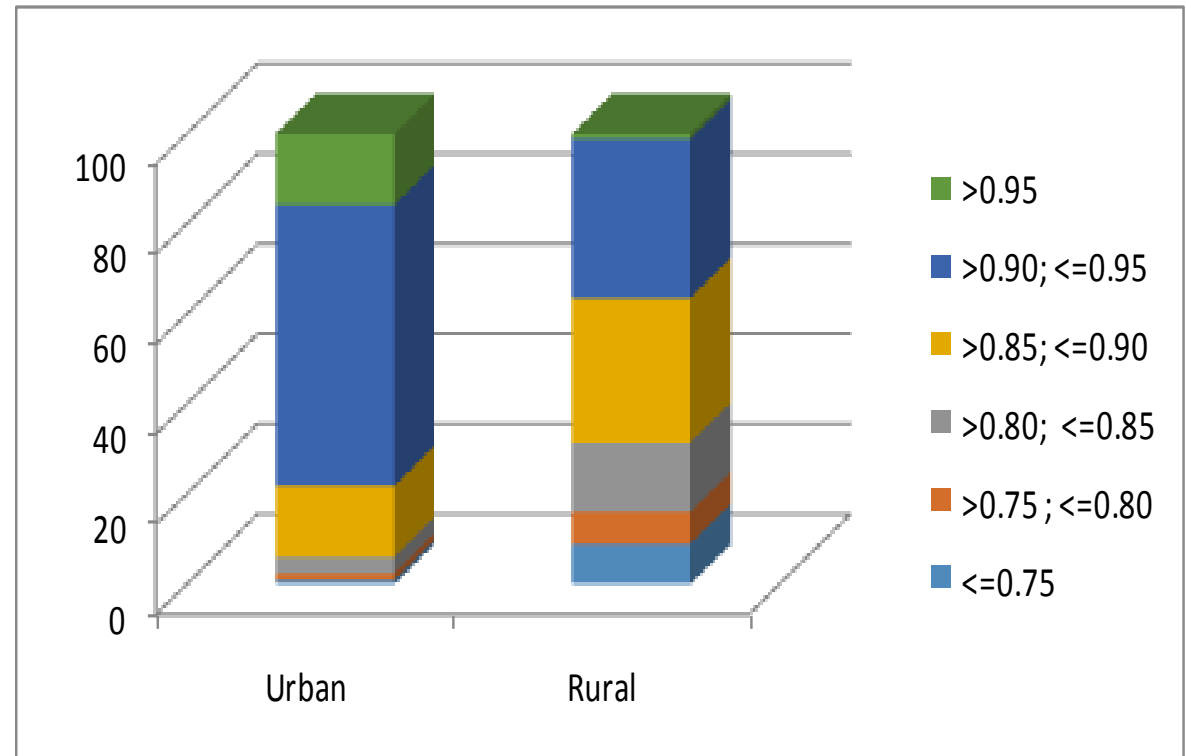


IV. Utilization of food (3/4)

Food diversity of households from rural and urban areas measured by the Berry index

The households with high dietary diversity for which the Berry index values are higher than 0.90 account for **68% in the urban area** and only **36% in the rural area**.

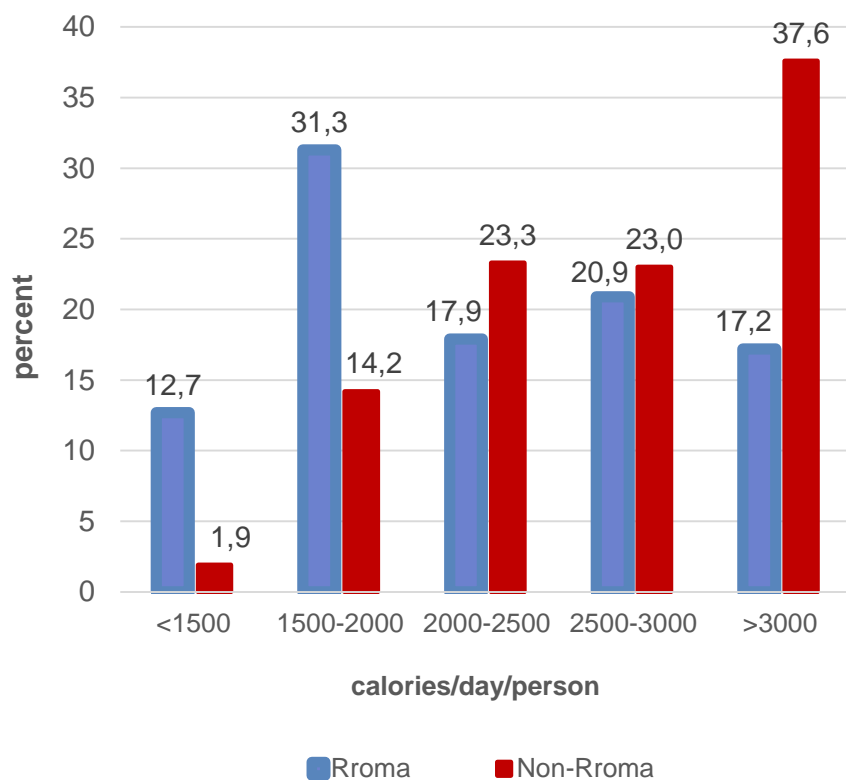
The rural households have moderate dietary diversity, most of them (47%) having Berry index values ranging from 0.80 to 0.90.



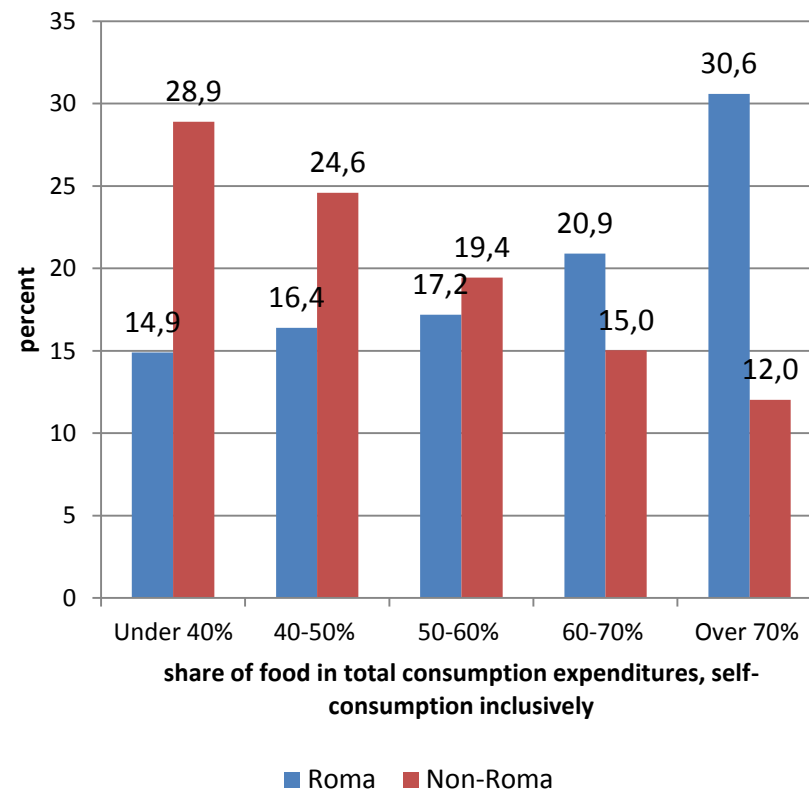
IV. Utilization of food (4/4)

Food consumption and share of food expenditures in certain population ethnic groups (1st quarter 2011)

Distribution of households by food consumption expressed in calories



Distribution of households by the share of food expenditures in total consumption expenditures



**Strategic priorities for
*Agriculture***

**ROMANIA'S DEVELOPMENT STRATEGY
FOR THE NEXT 20 YEARS
(Romanian Academy version)**

Strategic priorities for *Food Security and Safety* within ROMANIA'S DEVELOPMENT STRATEGY FOR THE NEXT 20 YEARS, of the ROMANIAN ACADEMY

1. INCREASING ROMANIA'S AGRICULTURE ROLE AS FOOD SECURITY SUPPLIER, through:

- ▶ Increased coverage of food consumption needs from the domestic agricultural production
- ▶ Domestic agricultural supply stabilization, mainly through support measures for the irrigation and land reclamation infrastructure, as well as through other measures to fight against the climate change effects
- ▶ Increasing the agricultural exports and acquiring the food security supplier status at regional and European level

2. INCREASING THE POPULATION'S ECONOMIC ACCESS TO FOOD AND NUTRITION QUALITY IMPROVEMENT

- ▶ Increasing the population's purchasing power;
- ▶ Bridging up the gaps referring to the food access of the different categories of households;
- ▶ Qualitative improvement of the population's food diet by increasing the animal protein consumption and food diversity

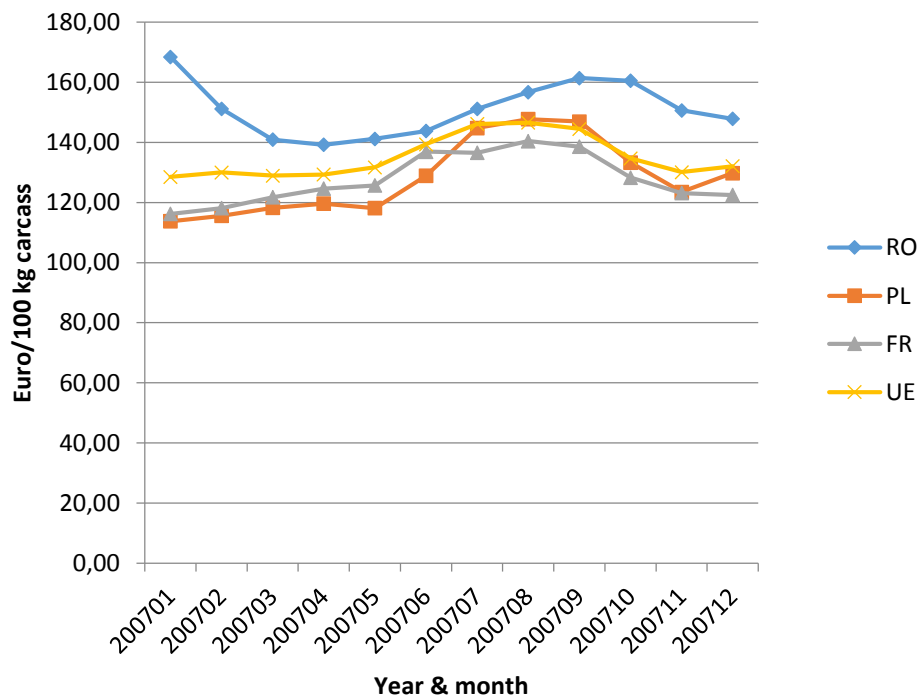
► Increased coverage of population's consumption needs from domestic production

Pork

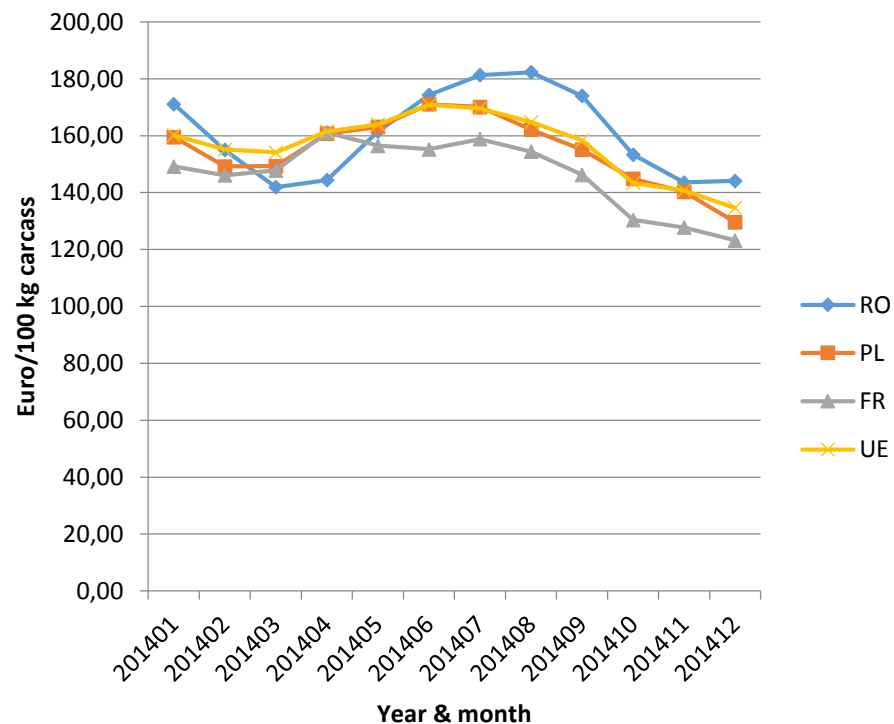
	u.m.	Baseline situation (2013)	Short term (2018)	Medium term (2025)	Long term (2035)
Utilizable production	thousand tons	421	465	560	610
Imports	thousand tons	190	160	100	80
Exports	thousand tons	30	40	55	80
Supply availabilities	thousand tons	580	585	605	610
Self-supply level	%	72%	72%	93%	100%

Pork production competitiveness and producer prices (Romania as compared to France and Poland)

Monthly pork price evolutions
in the year **2007**



Monthly pork price evolutions
in the year **2014**



► Increased coverage of population's consumption needs from domestic production

Vegetables

	UM	Baseline situation (2013)	Short term (2018)	Medium term (2025)	Long term (2035)
Utilizable production	thousand tons	3326	3712	4143	4547
Imports	thousand tons	403	368	320	150
Exports	thousand tons	67	77	93	167
Consumption availability	thousand tons	3662	4003	4386	4530
Self-sufficiency	%	91%	93%	95%	100%

► Increased coverage of population's consumption needs from domestic production

Fruit

	UM	Baseline situation (2013)	Short term (2018)	Medium term (2025)	Long term (2035)
Utilizable production	thousand tons	2291.5	2338.1	2539.0	2634.7
Imports	thousand tons	758.1	748.5	722.3	662.9
Exports	thousand tons	134.0	155.6	201.3	250.6
Consumption availabilities	thousand tons	2915.7	2930.9	3060.0	3046.9
Self-sufficiency	%	78.6%	79.8%	83.0%	86.5%

► Domestic agricultural supply stabilization

Main directions and targets for the next 20 years

	Reference value	Short term 2018	Medium term 2025	Long term 2035
Share of agricultural area equipped with irrigation facilities	21% (2014)	21%	21%	21%
Share of agricultural area effectively prepared for irrigations (functional/rehabilitated)	24% (720 thou. ha) (2015)	28% (830 thou. ha)	50% (1500 thou. ha)	67% (2000 thou. ha)
Share of effectively irrigated agricultural area	6% (166 thou. ha) (2015)	28% (830 thou. ha)	50% (1500 thou. ha)	67% (2000 thou. ha)
Agricultural advisory service – share of farmers who participated to vocational training courses	2,6 % (2005-2012 average)	7%	20%	50%
Increasing the agricultural research expenditures	185 mil euro (2015)	+80%	+150%	+200%
Agricultural education /Share of farm heads with full agricultural training	0.4% (2013)	7%	15%	25%

► Romania's acquiring the status of exporting country of agricultural products and food security supplier at regional and European level

Targets of foreign trade balance for main agricultural products (mil. euro)

	Reference value (2013)	Short term (2018)	Medium term (2025)	Long term (2035)	Balance
Live animals	151	149	224	291	Permanently positive
Meat	-261	-216	-88	71	Positive since 2031
Vegetables	-106	-50	23	131	Positive since 2019
Fruit	-215	-180	-128	-46	Permanently negative
Cereals	1656	1835	2307	2685	Permanently positive

► Increasing the population's access to food and food quality improvement

	UM	Reference value (2013)	Short term (2018)	Medium term (2025)	Long term (2035)
Share of food expenditures in total consumption expenditures, at purchasing power parity	%	37.4	36.0	33.0	29.0
Meat consumption (fresh meat equivalent), out of which:	kg/capita	57.4	60.5	64.4	69.3
<i>-pigs</i>	<i>kg/capita</i>	<i>29.0</i>	<i>29.6</i>	<i>31.2</i>	<i>32.6</i>
<i>-poultry</i>	<i>kg/capita</i>	<i>17.5</i>	<i>19.4</i>	<i>20.8</i>	<i>22.7</i>
<i>-bovines</i>	<i>kg/capita</i>	<i>5.1</i>	<i>5.5</i>	<i>5.9</i>	<i>6.5</i>
<i>-sheep and goats</i>	<i>kg/capita</i>	<i>2.4</i>	<i>2.5</i>	<i>2.7</i>	<i>3.1</i>
Cereal consumption (grain equivalent)	kg/capita	217	190	170	150
Vegetable consumption (fresh vegetables equivalent)	kg/capita	152	167	184	187
Fruit consumption (fresh fruit equivalent)	kg/capita	74	79	86	89

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Thank you for your attention !

Cecilia ALEXANDRI – cecilia@eadr.ro

Camelia GAVRILESCU – gavrilescu@eadr.ro

Lucian LUCA – luca@eadr.ro

Dan-Marius VOICILAS – voicilas@eadr.ro