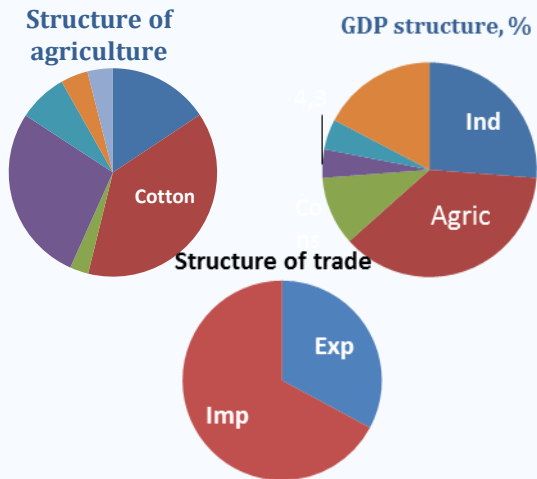


Food Security in 2025: Availability, Access and Balanced nutrition

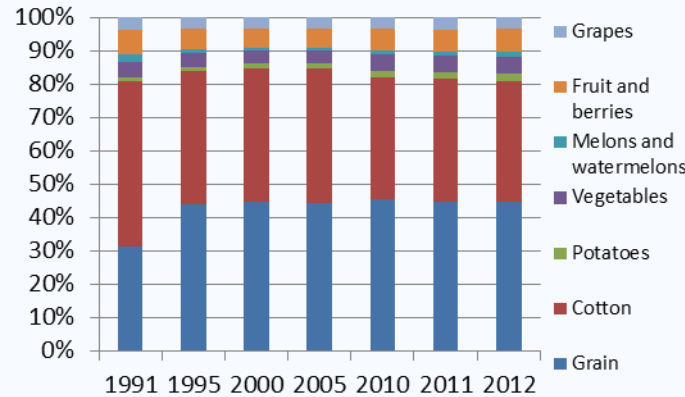
**Kamila Mukhamedkhanova
Center for Economic Research
Tashkent, 2014**

Uzbekistan's approach to Food Security 1991-2013

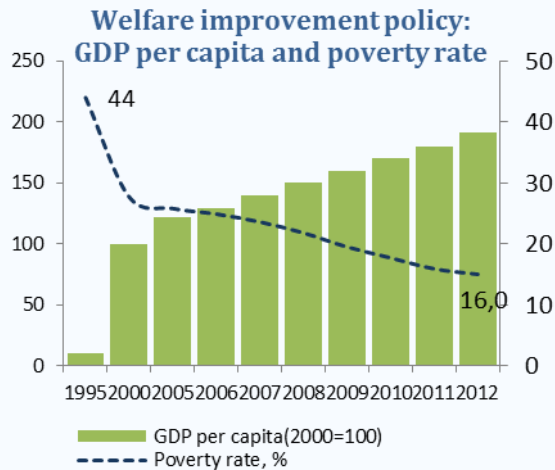
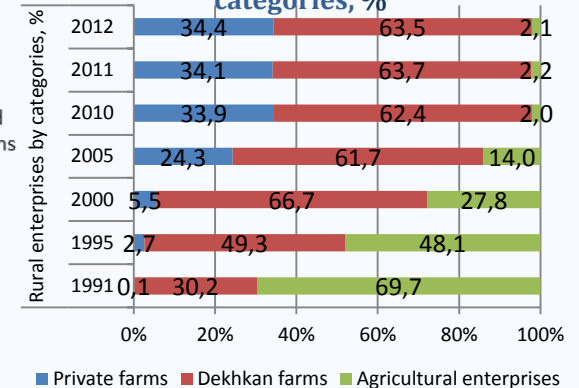
Starting position in 1991



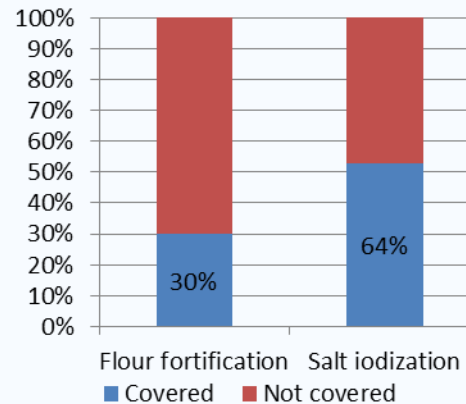
Restructuring of the agricultural output mix: structure of the sown area by types of crops (%)



Institutional reforms in agriculture: Structure of rural enterprises by categories, %



National nutrition policy: flour fortification & salt



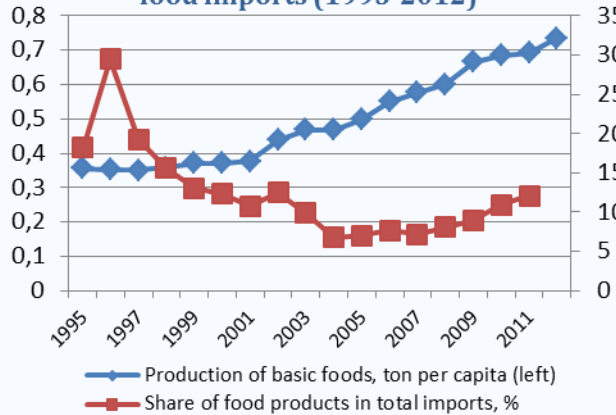
- Starting position in 1991:**
- Uzbekistan – a net importer of basic foods;
 - National agriculture heavily specialized in cotton-growing;
 - Hard currency revenues and reserves insufficient to close gap by imports;
 - Importance to strike a delicate balance to achieve a number of development goals
- **Food Security – one of the Priority issues for Government**
- **Government takes a pro-active role in the food policy regulation process**

Policies employed:

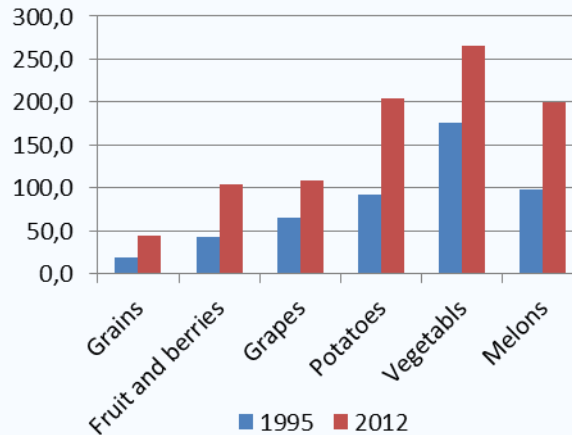
- Restructuring of the agricultural output mix;
- Institutional reforms in agriculture;
- Welfare improvement policies (price controls, social assistance to the target groups;)
- National nutrition policy.

Uzbekistan's Food Policy: Main Achievements

Per capita production of basic foods VS food imports (1995-2012)



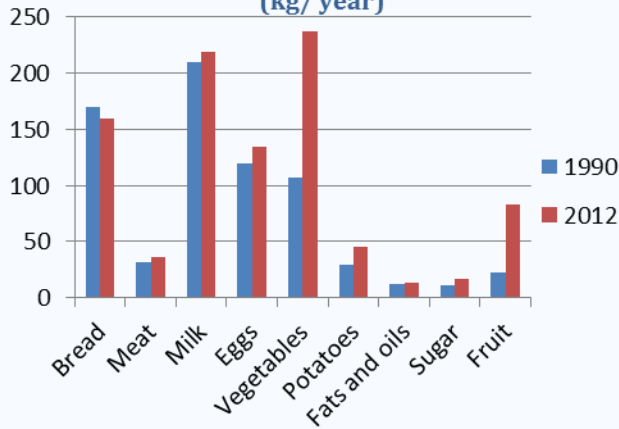
Crop yield : 1995 VS 2012



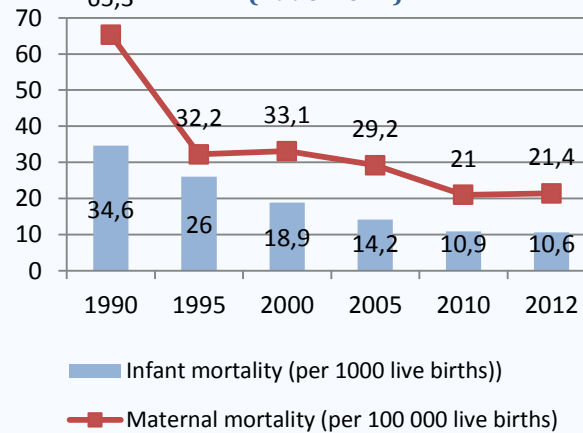
Gross per capita food production index: Uzbekistan VS Other economies (base 2004-2006)



Consumption of basic foods 1990 VS 2012 (kg/ year)



Maternal and infant mortality (1990-2012)

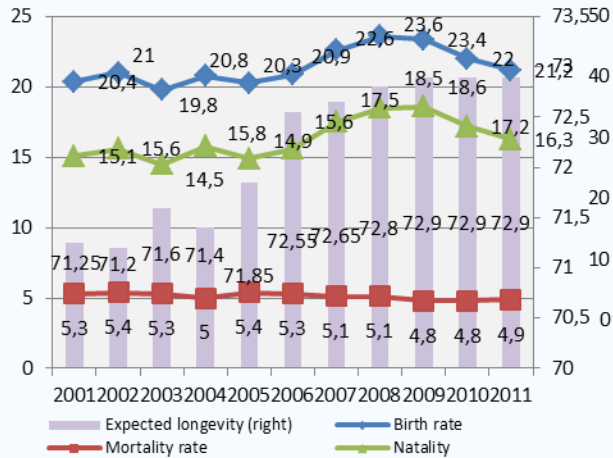


Achievements:

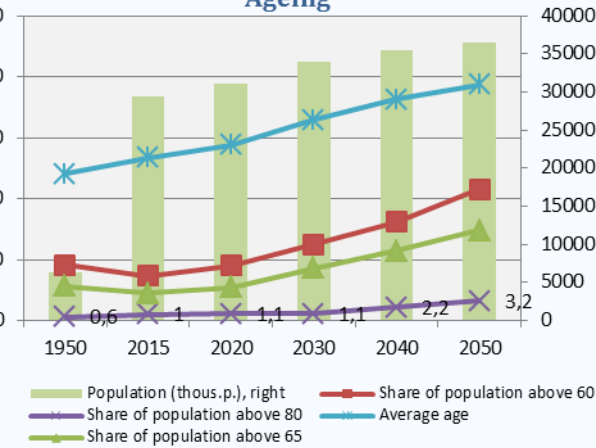
- Grain independence as well as the self-sufficiency in basic foods is attained;
- Steep rise in crop yield and output of meat, eggs, potatoes, fruit & vegetables;
- Improved access to the basic foods;
- Improved quality of nutrition, decline in child mortality and improvement in anthropometric indicators;
- → Uzbekistan's Food Policy proved its effectiveness and averted the threats to the nation's food security;
- → Elements of Uzbekistan's Food policy are now widely recognized and considered as internationally accepted best practices

How to sustain the achieved results: Main challenges

Demographic trends: population, natality, expected longevity



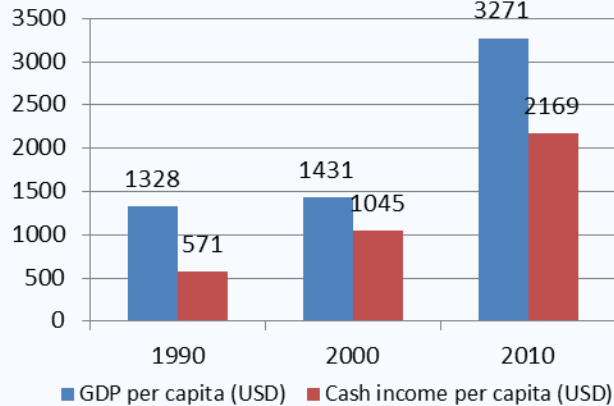
Transformation of the demographic pattern: Ageing



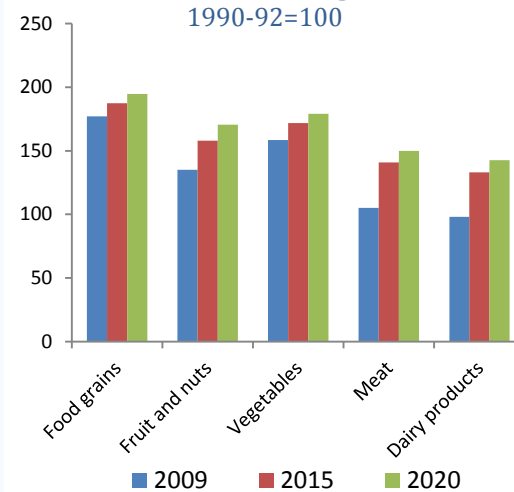
- Current and expected trends in the global and national economy are posing new challenges for sustaining nation's food security in the long term:

- Population growth and change in the demographic pattern + growth of personal income → transformations of the lifestyle and behavioral stereotypes → **increased demand for food and transformed food consumption pattern**

Growth of personal income: GDP and cash income per capita

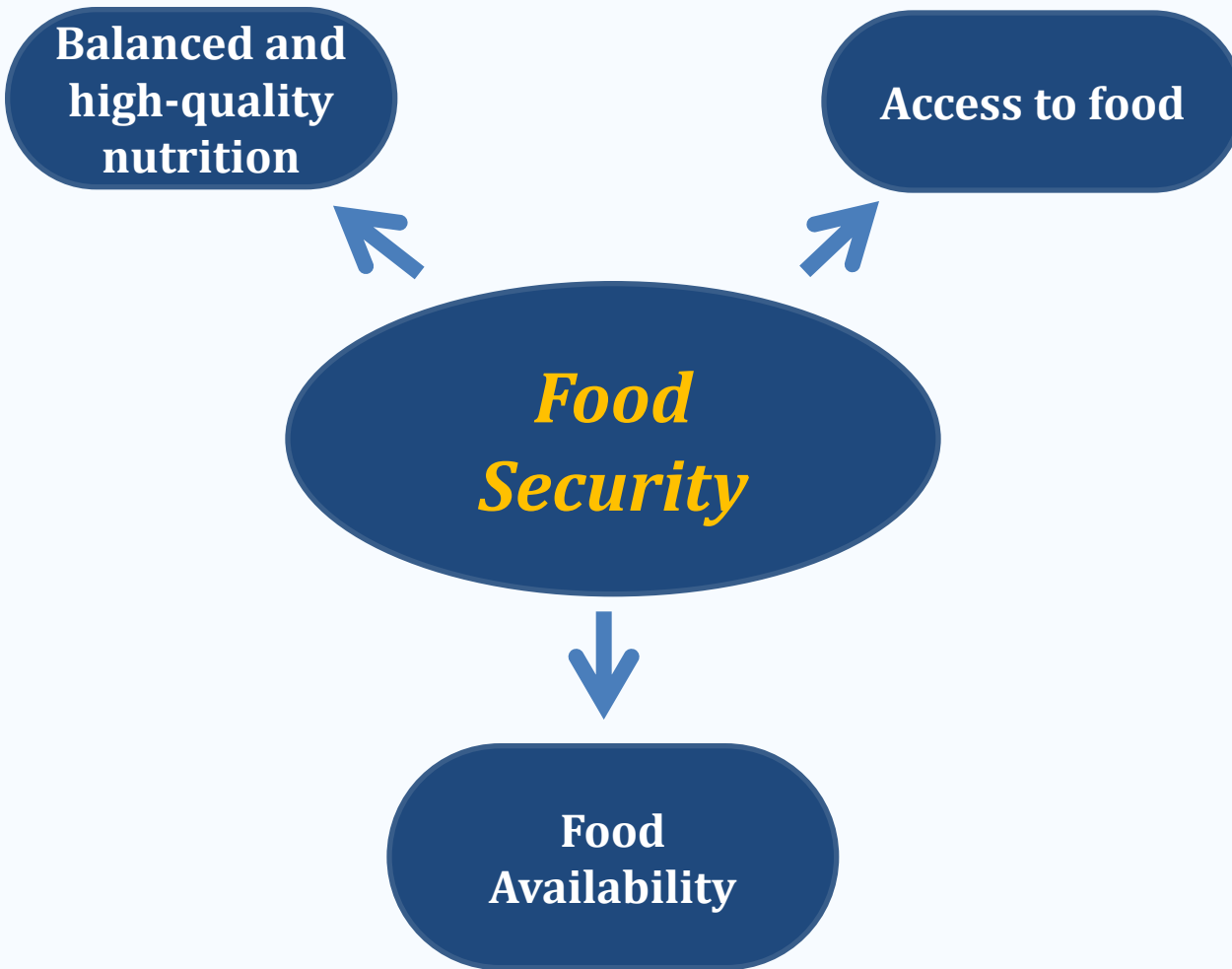


Projections of price indexes for selected food categories



- **Aggravating problems of deteriorating land quality and diminishing water supply** (due to the climatic and geopolitical factors)
- **Rise of world food prices** ← growing demand for food in the third world countries + limited food supply due to the climate factor and expanding biofuel production
- **To cope with the new challenges more comprehensive and complex approaches, methods and policy instruments need to be implemented**

Complex approach to the Food Security: 3 key dimensions



- Food Security should be considered as an integrated concept incorporating 3 key dimensions
- The principal benchmarks of food policy should be determined in the three key areas:
 - ✓ **Goal 1** – to ensure the availability of the required amount of food;
 - ✓ **Goal 2** – to ensure the access to the essential foods for all the strata of the population;
 - ✓ **Goal 3** – to maintain a balanced and high-quality nutrition in order to improve the nation's gene pool.

Goal 1: Food Availability

Scenario 1. Sustaining a balance between food production and consumption

	Difference between amount of supply and demand, thousand tons	Crop yield, centners/hectare		Crop areas, thousand hectares	
		2012	2025	2012	2025
Grain	-1542.5	42.4	55.00	1472.3	1500
Vegetables	-1650	300	440	162.8	195.5
Fruits	-400.4	100	160	244.3	269.3

Projections on supply and demand for forage crops

	Demand, thousand tons	Production, thousand tons	Shortfall, thousand tons
Feed	15,614	4,430	11,184

	Cotton	Feed crops
Change in crop areas, thousand hectares	-311	311
Change in production, thousand tons	-839.7	11,184
Production costs, million USD	-327.6	103.8
Additional costs for meat and milk production, million USD		1,730.1
Change in cotton export revenue, million USD	-416.5	
Potential benefits from decreased imports of meat and milk, million USD		3,909.2
Total gain, million USD		1,331

Scenario 2. Focus on production of crops with the comparative advantage

	Veget. VS Cotton	Fruit VS Wheat
Change in crop areas, thousand hectares	60.0	-42,00
Increase in crop yield, centners/hectare	180.0	2,4
Change in production, thousand tons	5,810.4	165.19
Change in production costs, billion UZS	1,154.4	-26.5
Change in export revenue (import costs), million USD.	2,232.2	-57.2
Additional investments, million USD	728.363	1,576.7
Change in employment	125.81	-1.68
Total gain, million USD	1,384.2	3,398.2
Additional jobs created, thousands	97.6	36

- Projections of food production and consumption in 2025 → inertial development pattern may not ensure the availability of the required amount of food

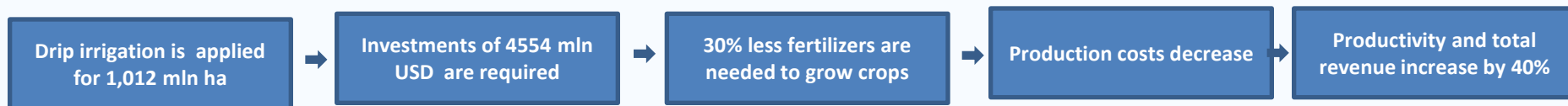
Scenarios to cover the projected difference between demand and supply of food:

- Scenario 1 – sustaining a balance between the consumption and production of food by:
 - boosting productivity and crop yield;
 - expanding the sown area.
- Scenario 2 – focus on production of foods in which Uzbekistan has a comparative advantage
 - Reallocate 42 thous. ha from grain to fruit and 60 th. ha from cotton to vegetables;
 - Increase crop yield of fruit twice, of vegetables – by 1,6 times.

Goal 1: Food Availability: Recommendations to implement the scenarios

Effective implementation of either of the scenarios will require to:

1) Improve the water management and water use system to produce the required amounts of food:



2) Introduce advanced agro-technologies to raise the crop yield and livestock productivity



3) Step up research and development in agriculture to create more efficient local varieties of plants and breeds of animals and improve the quality of animal-husbandry technologies

4) Expand and improve the quality of the veterinary services: in 2025 30,3 thousand veterinary personnel need to be present within the sector. (Now - 8,3 thousand specialists (27% of the required level))

Goal 2: Food Accessibility

- 1) Reformation of the agrarian institutions and optimization of the farm size by expanding the animal farms to 1000 heads of livestock, vegetable-growing farms - to 85 ha, fruit-growing farms - to 40 ha.

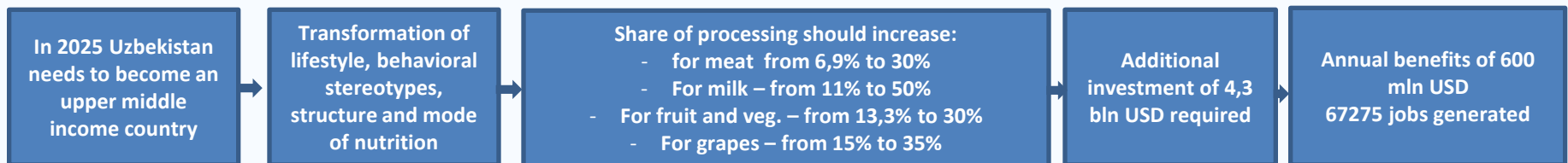


- 2) Create an efficient system of procurements, distribution, processing and sales of agricultural food products

- a) Establish an efficient cold storage system for fresh and processed foods



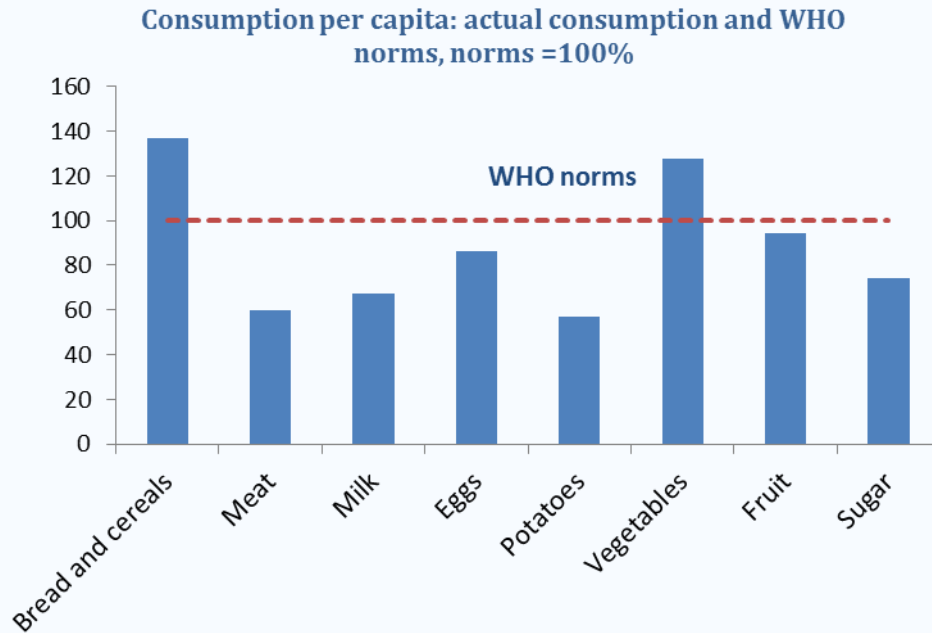
- b) Develop an efficient system of food processing



- c) Develop the efficient sales, marketing and distribution system

- Reformation of institutions in agriculture will require the shift from bazaar trade to the grocery store and supermarket trade to minimize transaction, transportation and administrative costs and ensure food safety
- By 2025, 70% of retail food sales should take place in stores and supermarkets (now - 37%) → → 430 additional supermarkets need to be built by 2025

Goal 3: Balanced nutrition and Quality of Food



- 1) Balanced and high-quality nutrition is essential to improve the nation's gene pool
- 2) If the balanced and high-quality diet is provided:
 - Health expenditures will decline by 1,68 bln. USD by 2025;
 - Benefits from improvement of the quality of human capital will account for 1,36 bln. USD;

3) Instruments to achieve these results are:

- Implementation of programs to improve the nutrition of pregnant women, breast-feeding mothers and children under 5 (1,14 bln USD);
- Introduction of dietary standards and guidelines according to the ISO-2000 (257,8 mln USD);
- Raising public awareness and dissemination of the information on healthy lifestyle and appropriate nutrition.

Findings

- The complex multidimensional approach to food security needs to be implemented;
- There is a need for multi-optional scenarios and estimations;
- Forecasting methods should go beyond the extrapolation, but rather take into account the transformative processes in all spheres;
- Food Security Strategy needs to be integrated into the broader framework of the country development strategy;
- The regional development context is important to develop the National Food Security Strategy.