



OVERVIEW OF THE RUSSIAN FERTILIZER MARKET AND NEW FERTILIZER PROJECTS IN RUSSIA

Oleg Kostin
General Director, R&D Institute of Urea

Irina Kostina
*Manager for Regional Business
Development, R&D Institute of Urea*

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Research and Design Institute of Urea – vast engineering experience in Russia and abroad



1952 Branch of State Institute of the Nitrogen
Industry

1993 JSC Research and Design Institute of Urea

Recent number of personnel is **370** employees

Main services rendered by R&D Institute of Urea:

1. Basic and detailed design of urea production units
2. Packaged delivery of equipment
3. Business planning, feasibility studies, investment estimation
4. Implementation of revamp concepts for urea production facilities
5. Computer process simulators
6. Proprietary technologies for urea-based compound fertilizers production in a high-speed drum granulator
7. Technological inspections and equipment assessment with recommendations issue
8. Corrosion inspections of HP piping and vessels



AGENDA

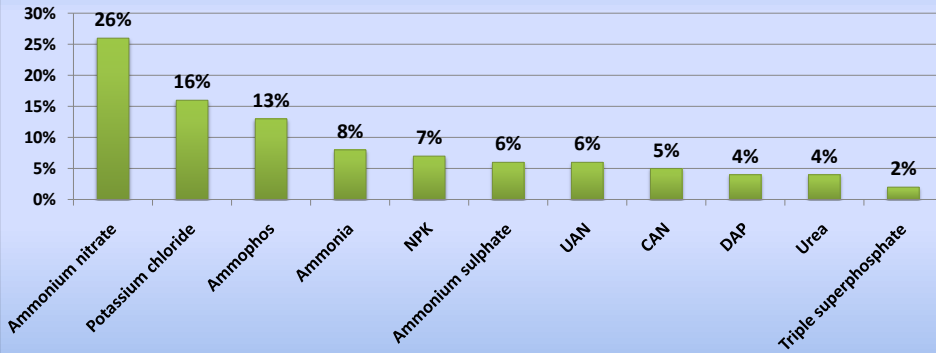
1. Fertilizer production in Russia. Trends and forecast.
2. Fertilizer use in Russia. Trends and forecast.
3. Fertilizer exports from Russia. Trends and forecast.
4. Conclusions.



1. FERTILIZER PRODUCTION IN RUSSIA TRENDS AND FORECAST



Russia's share in world fertilizer capacities, 2009

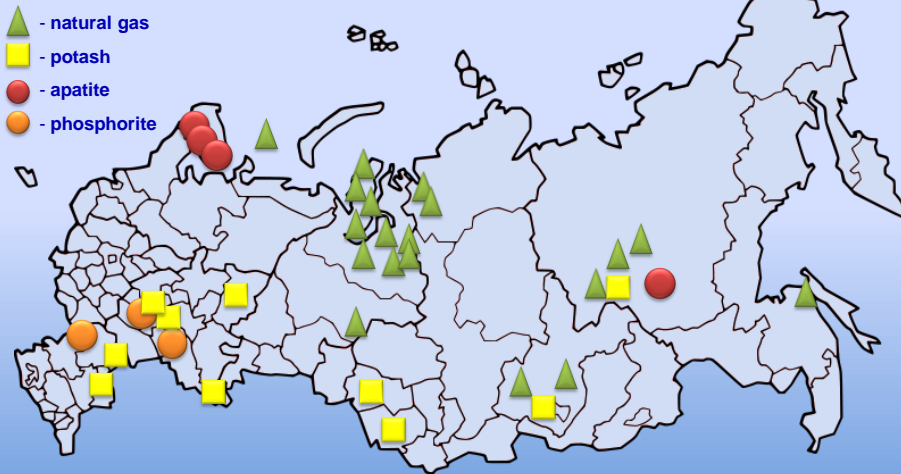


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WIDE NATURAL RESOURCE BASE FOR FERTILIZER PRODUCTION

Source: British Sulphur, IFA, Fertecon, EuroChem

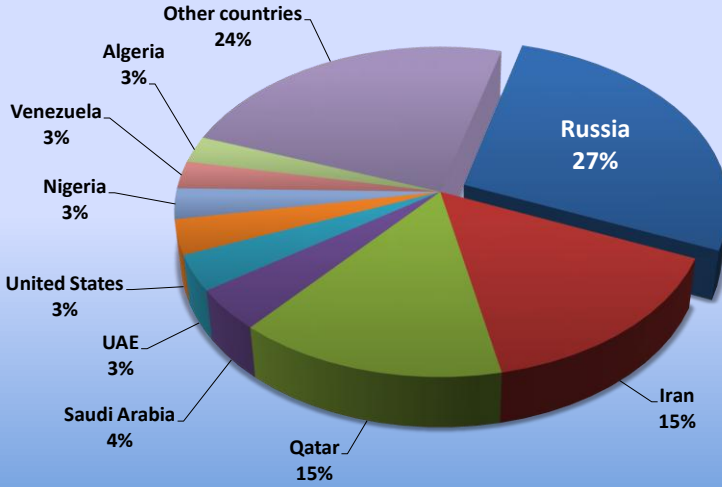


Raw materials for fertilizer production in Russia





Countries by natural gas reserves



Source: USGC, NationMaster



World potash and rock phosphate production, reserves and reserve base

Potash mine production, reserves and reserve base.				
	Country	Mine production, 2008, Mt	Reserves, Mt	Reserve base, Mt
1.	Canada	11.0	4,400	11,000
2.	Russia	6.90	1,800	2,200
3.	Belarus	5.10	750	1,000
4.	Germany	3.60	710	850
5.	Brazil	0.43	300	600
6.	Israel	2.40	40	580
7.	Jordan	1.20	40	580

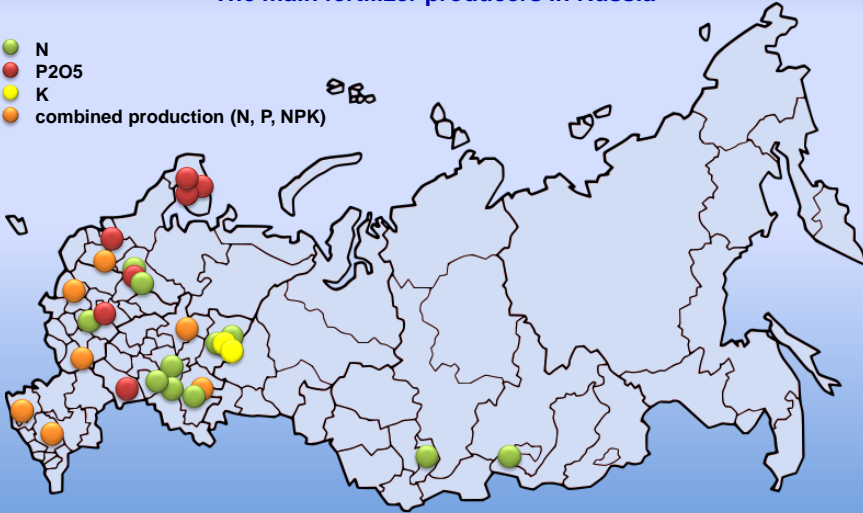
Rock phosphate mine production, reserves and reserve base.				
	Country	Mine production, 2008, Mt	Reserves, Mt	Reserve base, Mt
1.	Morocco	28.00	5,700	21,000
2.	China	50.00	4,100	10,000
3.	USA	30.90	1,200	3,400
4.	South Africa	2.40	1,500	2,500
5.	Jordan	5.50	900	1,700
6.	Australia	2.30	82	1,200
7.	Russia	11.0	200	1,000

Source: USGC, NationMaster



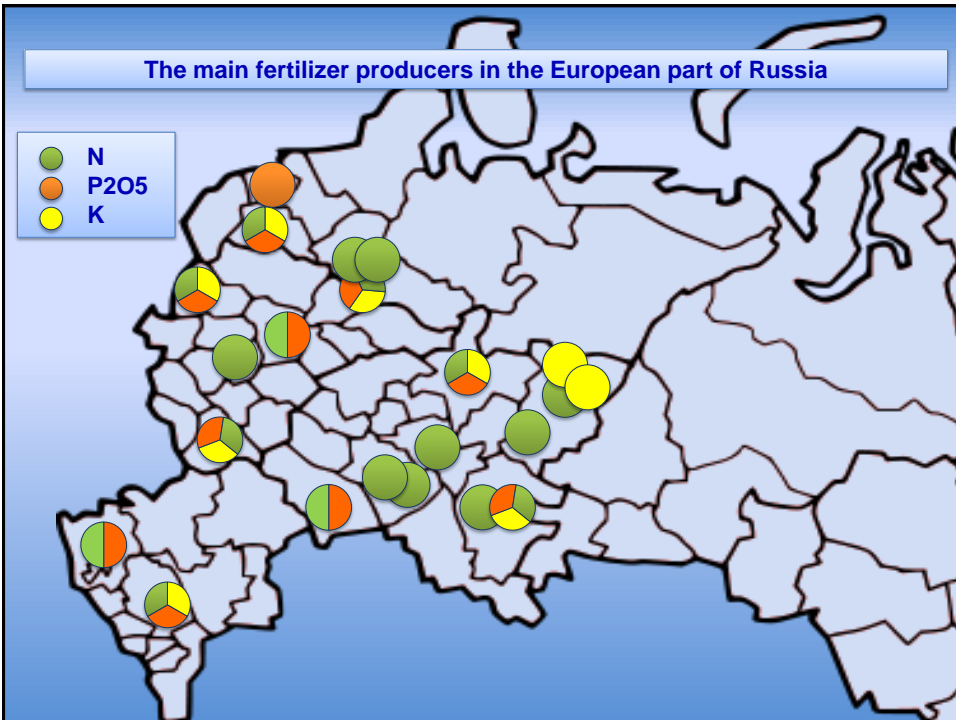
The main fertilizer producers in Russia

- N
- P2O5
- K
- combined production (N, P, NPK)



The main fertilizer producers in the European part of Russia

- N
- P2O5
- K



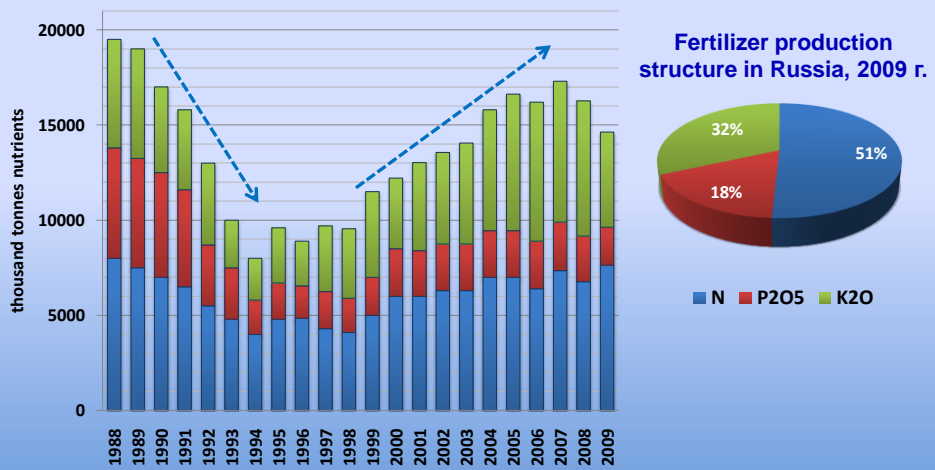


Fertilizer sector structure in Russia

EuroChem	PhosAgro	Acron	UralChem
Nevinnomyssky Azot (N, NPK)	Apatit	Acron (N, NPK)	Kirovo-Chepetsk Chemical Works (N, NPK)
Novomoskovsky Azot (N)	Ammophos (NP, NPK)	Dorogobuzh (N, NPK)	Azot, Berezniki
Phosphorit Industrial Group	BMU (NP)	North-Western Phosphorous Company (mining)	Voskresensk Mineral Fertilizers (NP)
Belorechenskie Minudobrenia (NP)	Cherepovetsky Azot		
Kovdorsky GOK (mining)	Agro-Cherepovets		
EuroChem-Volgakaliy			
	<ul style="list-style-type: none"> ■ N ■ P2O5 ■ K2O ■ combined production (N, P, NPK) 		
Sibur Fertilizers	Independent producers		Gazprom structures
Minudobrenia, Perm	MendelevskAzot	Minudobreniya, Rossosh (N, NPK)	Salavatnefteorgsitez
Azot, Kemerovo	TogliattiAzot	Uralkali	Meleuz Mineral Fertilizers (N, NPK)
Angarsk Azotno-Tukovy Zavod	KuibyshevAzot	Silvinit	



Fertilizer production in Russia, 1988-2009



Source: Federal State Statistics Service of Russia



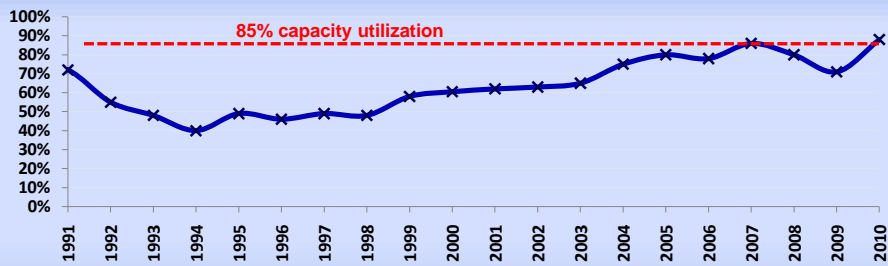
Fertilizer production in Russia, 2006-2010



Source: Federal State Statistics Service of Russia



Fertilizer capacity utilization in Russia, %



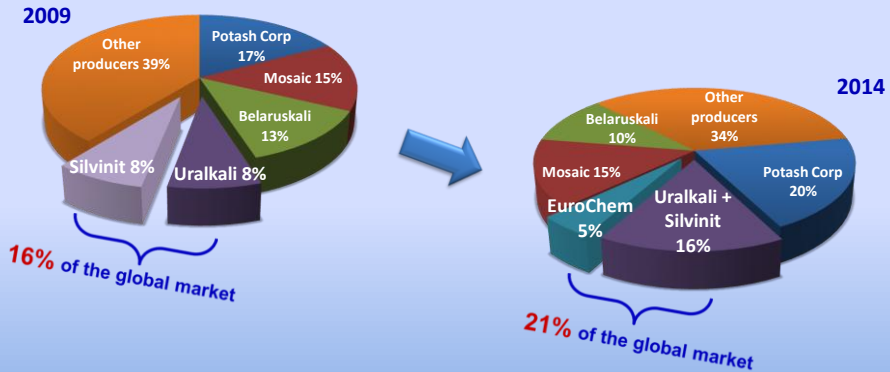
Projected fertilizer capacity increase in Russia

Fertilizer	Capacity 2009	2010	2011	2012	2013	2014	2015	Long term
Potash (Mt)	11,1			+3,8	+1,5		+2,3	+8,7
Nitrogen (Mt)	5,8			+2,1		+1,8		
Phosphate (Mt P2O5)	1,6					+0,8		
NPK (Mt P2O5)	0,3					+0,1		

Sources: IFA, EuroChem



Russian potash producers market share change, 2009-2014



Projected potash capacity increase

	Current (2009)	'10	'11	'12	'13	'14	'15	Long term
Uralkali	5,6			+1,5				+ 5,2
Silvinit	5,5				+1,5			+ 0,5
EuroChem	0,0			+2,3			+ 2,3	+ 3,4

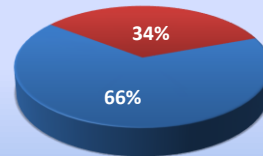
Source: IFA



Nitrogen capacity increase*: grass root projects and reconstructions

Grass root projects	2012 (t/y)	2015 (t/y)
MendeleevskAzot		680,000
Cherepovetsky Azot	500,000	
KuibyshevAzot		200,000
Minudobreniya, Rossosh		500,000
Acron, Novgorod	330,000	
Novomoskovsky Azot	385,000	
Total:	1,215,000	1,380,000
Reconstructions	2012 (t/y)	2015 (t/y)
KuibyshevAzot	60,000	
Nevinnomyssky Azot	200,000	
Novomoskovsky Azot	255,000	
Acron, Novgorod	180,000	
Cherepovetsky Azot	135,000	
Salavatnefteorgsintez	90,000	
TogliattiAzot		210,000
Azot, Berezniki		105,000
Azot, Kemerovo		105,000
Total:	920,000	420,000
Total:	2,135,000	1,800,000

Grass root projects and reconstructions share**

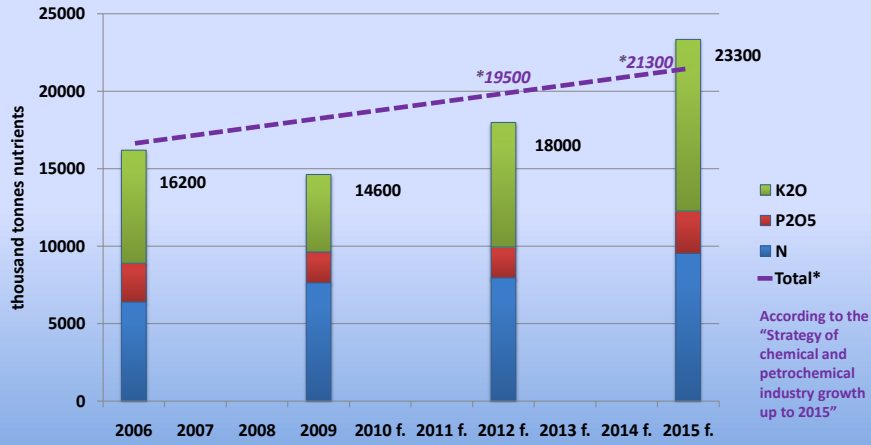


■ new projects ■ reconstruction
** by capacity

*The largest part of capacity increase will come from ammonia and urea capacity increase.



Fertilizer production increase in Russia, 2015



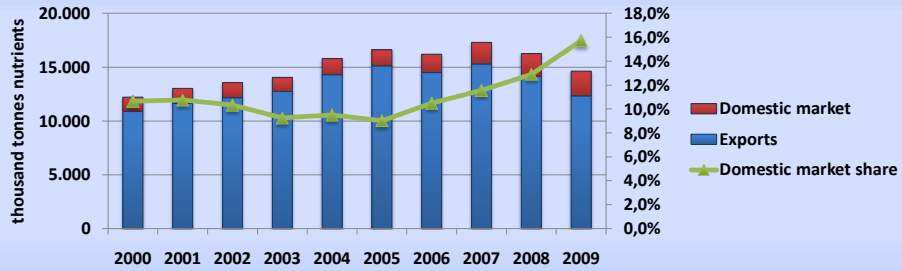
Source: «Strategy of chemical and petrochemical industry growth up to 2015»



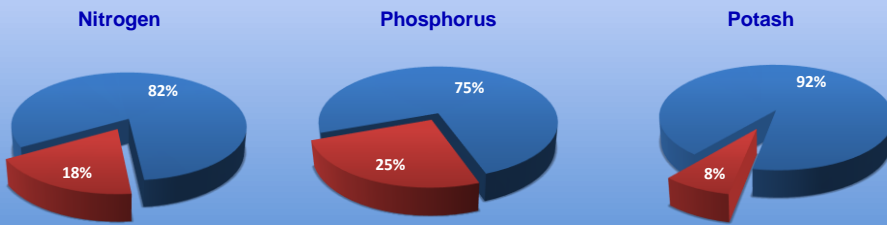
2. FERTILIZER USE IN RUSSIA TRENDS AND FORECAST



Domestic market and export deliveries in Russia



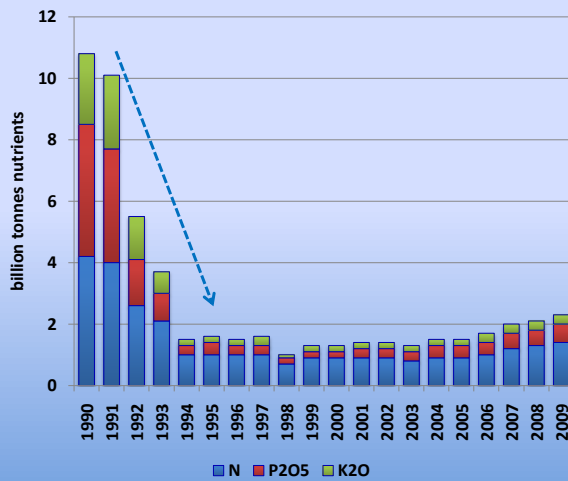
Domestic market and export deliveries by types of fertilizers



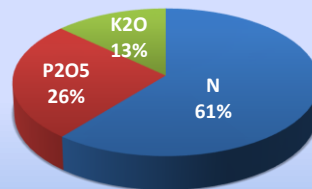
Source: Customs service of Russia



Fertilizer use in Russia, 1990-2009



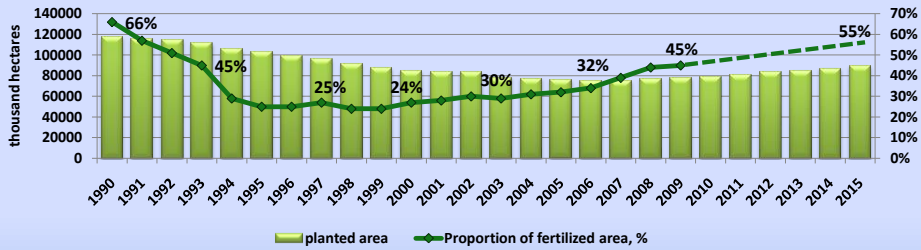
Fertilizer use structure in Russia, 2009



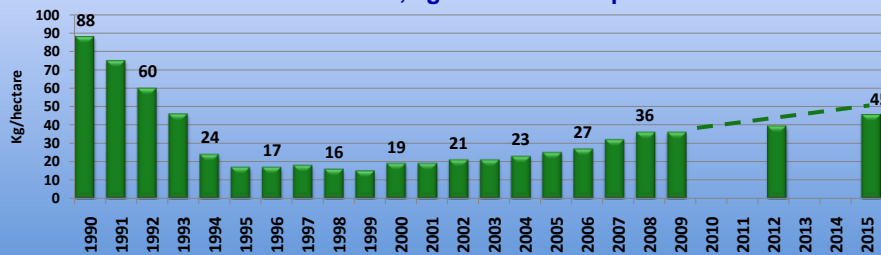
Source: Federal State Statistics Service of Russia



Planted area in Russia and proportion of fertilized area, %



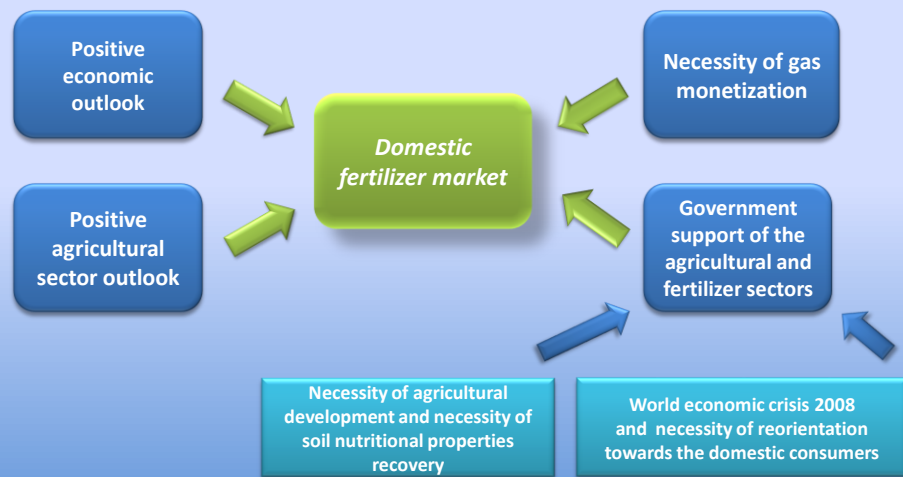
Fertilizer use in Russia, kg/hectare of the planted area



Source: Federal State Statistics Service of Russia, Agrohimia.ru



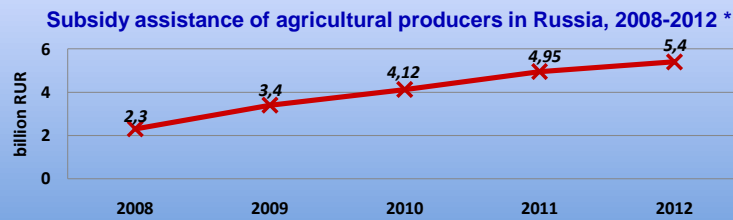
Factors contributing to the domestic fertilizer market development in Russia





Government support of the agricultural and fertilizer sectors

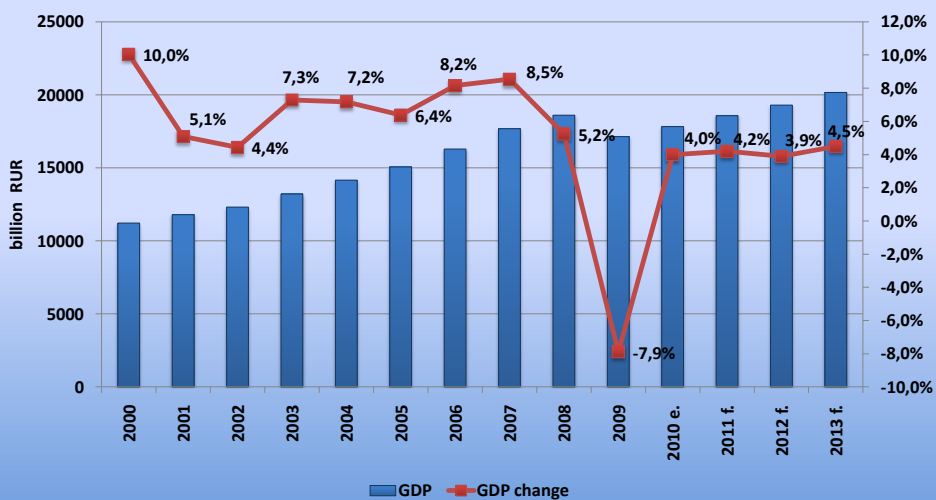
1. Fixation of fertilizer purchase amounts by agricultural producers (2008-2012).
2. Fixation of fertilizer price formula (2008-2012).
3. Long-term planning of fertilizer mix and regions consuming fertilizers.
4. Favourable credit facilities for the agricultural producers (25-30 milliard RUR, November-December '08).
5. Subsidy assistance of agricultural producers to the extent of 30% of the fertilizer prices in 2009 (30 billion RUR ~ 1 billion USD).



* According to the National Program of Agricultural Development



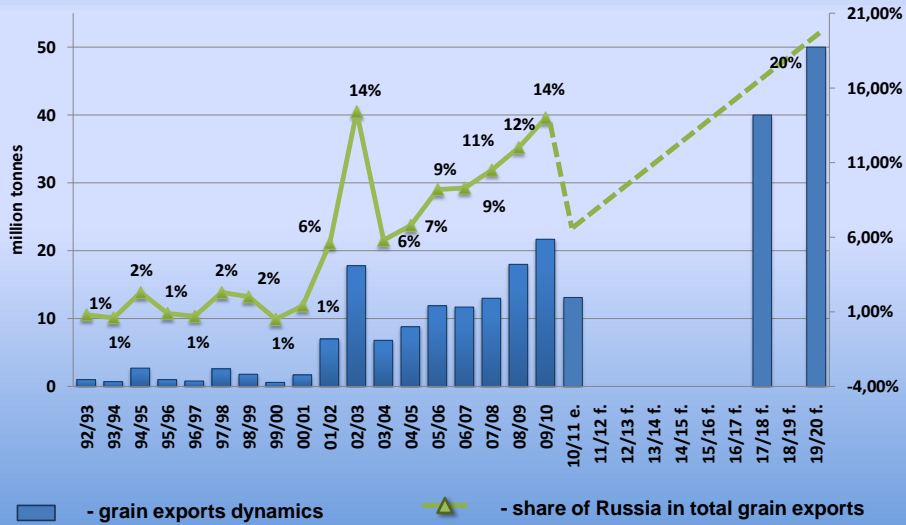
GDP dynamics in Russia 2000-2013 (at 2003 values)



Source: Ministry for economic development of the Russian Federation



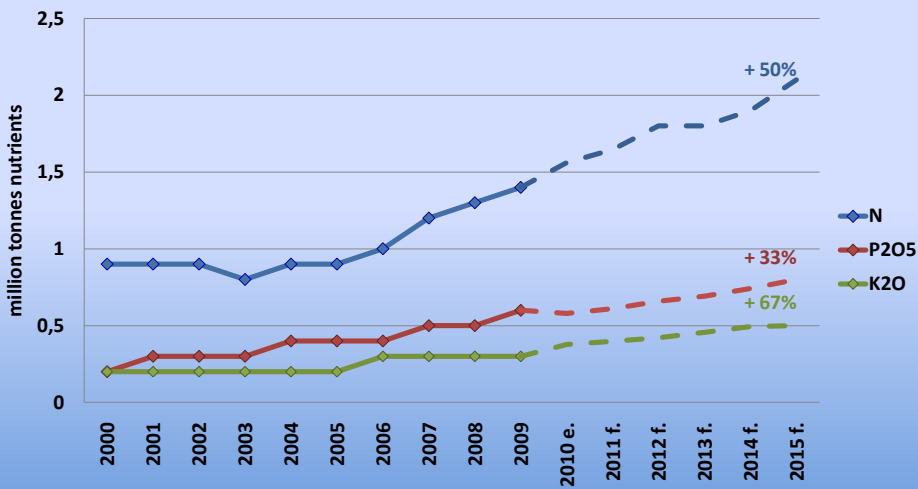
Grain exports dynamics from Russia



Source: Customs service of Russia, Russian grain union, Ministry of agriculture



Fertilizer use forecast in Russia 2010-2014



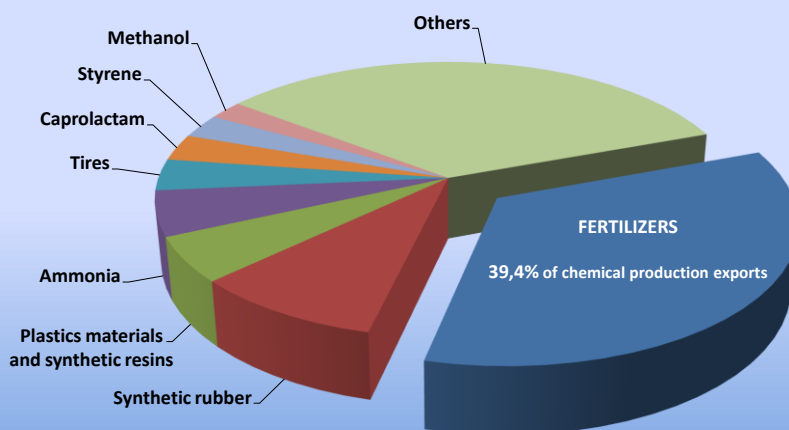
Source: National Program of Agricultural Development



3. FERTILIZER EXPORTS FROM RUSSIA TRENDS AND FORECAST



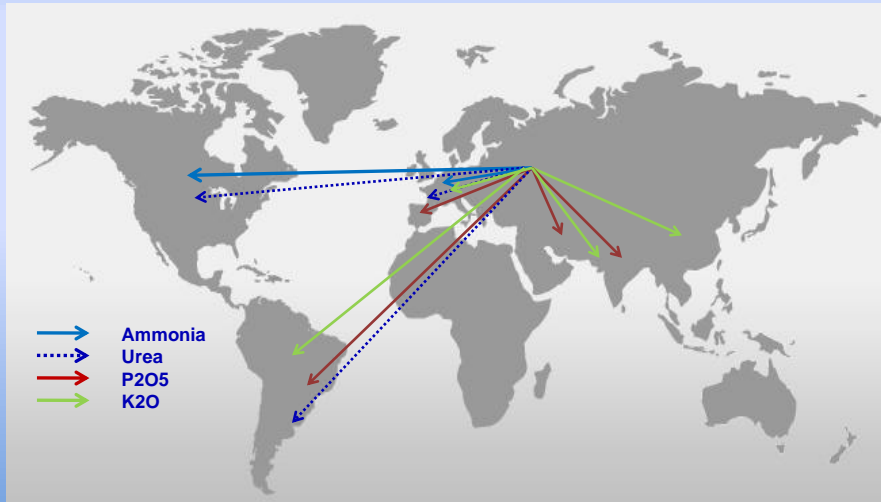
Russian chemical production export structure, 2009



Source: Federal State Statistics Service of Russia



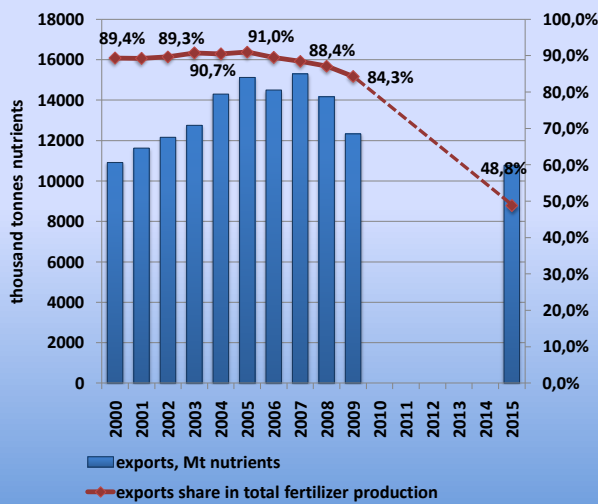
The main fertilizer export destinations from Russia*



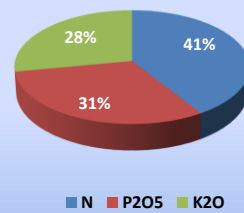
* Arrows point at regions and not at port locations



Fertilizer export dynamics and export share in total fertilizer production, 2000-2015



Fertilizer export structure from Russia, 2009



Source: Customs service of Russia, «Strategy of chemical and petrochemical industry growth up to 2015»



The main drivers of Russian fertilizer exports

- World population growth
- Improved diets and increased demand for protein-rich food
- Population welfare growth
- Decrease in planted areas due to soil depletion
- Increase in prices of agricultural products
- Biofuel production development



Factors contributing to exports share decrease in total fertilizer production

1. Capacity increase in the countries with low gas costs (Middle East)
2. Gas costs increase in Russia
3. Reorientation of importers to exports (India, China)
4. Anti-dumping duties on Russian fertilizers
5. High transport costs to export ports

2009



2015



Source: «Strategy of chemical and petrochemical industry growth up to 2015»



CONCLUSIONS

- 1. Fertilizer production is forecast to increase to 25 million tonnes of nutrients by 2015.**
- 2. Domestic fertilizer demand is forecast to grow from 2 to 3,5 million tonnes of nutrients by 2015.**
- 3. Exports will remain stable, but the export share is expected to decrease from 85% in 2009 to 50% by 2015.**