



# Separating the Soil

Black Earth narratives, geopolitics  
and the symbolic dimensions  
of farmland investment

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# Introduction

- ▶ Land rush (frontier of investment)
- ▶ Farmland investment: not a natural outcome of market forces (supply & demand)
- ▶ Critical studies focused on the *political* factors enabling new investment (Harvey; ABD; how coercion creates frontier markets). Applied in agrarian studies.
- ▶ Yet, little attention for *social & socio-technical* factors in making it investable (discourse, socio-cultural legacies, models) and *agro-ecological* ones

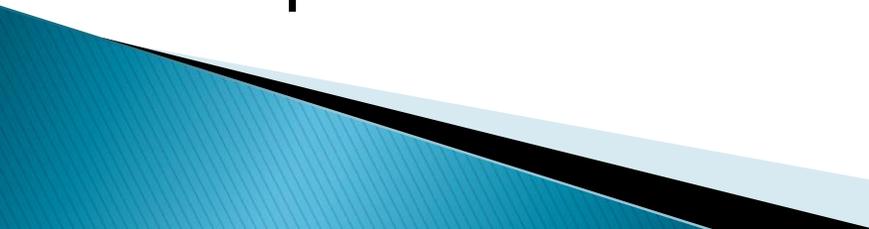


# Introduction (2)

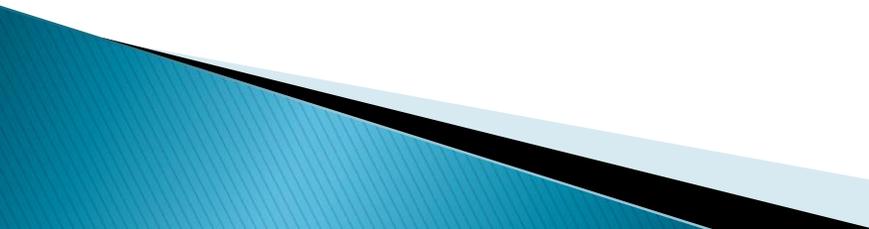


- ▶ Analyzing farmland investment as a process of assemblage, drawing on;
  - ▶ 1) ‘resource making’ (Richardson & Weskalnys 2013, Li 2014) &
  - ▶ 2) ‘unfixity of financialisation’ / asset making
  - ▶ 3) Actor–Network Theory
- ▶ Making farmland as an asset requires effort,
- ▶ **Farmland** is a unruly natural resource; localness, agro–climatic context, diseases, pests
- ▶ **Finance** wants liquidity –> standardization increasingly distanced from lumpy, localized physical object

# Introduction (3)

- ▶ Making of natural resource & financial asset; result of intentional & unintentional actions and processes
  - ▶ It can be unmade, 'erode' as an asset.
  - ▶ Argument; Farmland & land/soil *not* universally fixed → More elastic, moveable
  - ▶ Not only capital moves
  - ▶ Land moves in narratives, virtually and practically. These all have real life implications
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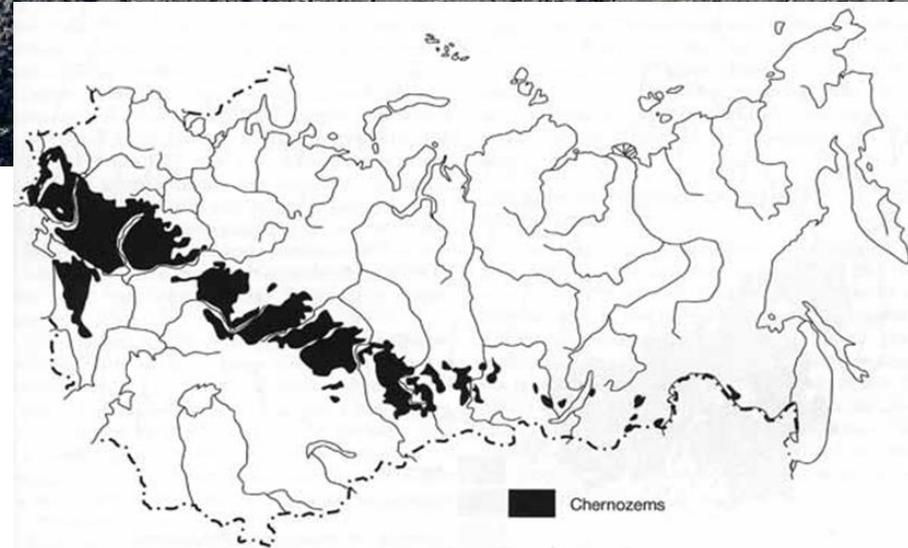
# Structure

- ▶ Soil fetishization
  - ▶ Soil fetishization → ignorance of legacy (social legacy, history of weather volatility)
    - Added difficulty: climate change
  - ▶ Other examples through space & time of moveability of land
  - ▶ Conclusions
- 

# Methodology

- ▶ Examination of investor discourse/actions, & wider legacies and historical narratives
  - ▶ Media analysis, investor documents, website (including images), interviews a.o.
  - ▶ Russia & Ukraine
- 

# Black Earth



▶ Source: Wikimedia commons

The Company holds ownership of an extensive land bank of *first class* soil (...). The soil type, Chernozem or "black earth", has a black color & contains a high percentage of humus .... It usually has great depth, over 1 meter, & exhibits a clay like structure which facilitates agricultural field works & is also favorable for retaining water.

–Black Earth Farming company website

..the day of early early ploughing –black to blue–ish,  
how pleasant is the fat layer on the blade  
Hello, Black Earth, be masculine, goggle–eyed –  
eloquent silence *at work*'

–Osip Mandelstam – 'Black Earth'

# Investors' soil fetishization

- ▶ Assessment of yield increase: focus on soil & comparisons: yield gaps
- ▶ Black Earth: so fertile, you can't go wrong
- ▶ BEF farm forum
- ▶ Dutch Minister of Agriculture
- ▶ Reducing farmland investment to 'land', & land to 'soil'

Soil + finance (technology & management) =  
yield increase = land appreciation

Reduction = separation

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Soil + finance (technology & management) =  
yield increase = land appreciation

Reduction = separation

# Separation: legacy

- ▶ Investor video



# Separation: legacy

- ▶ Investor video: left out – *Soviet legacy*



# Separation: legacy



# Separation: legacy/history

- ▶ Most importantly what's left out:

The Soviet history of weather & agriculture

# Separation: literally



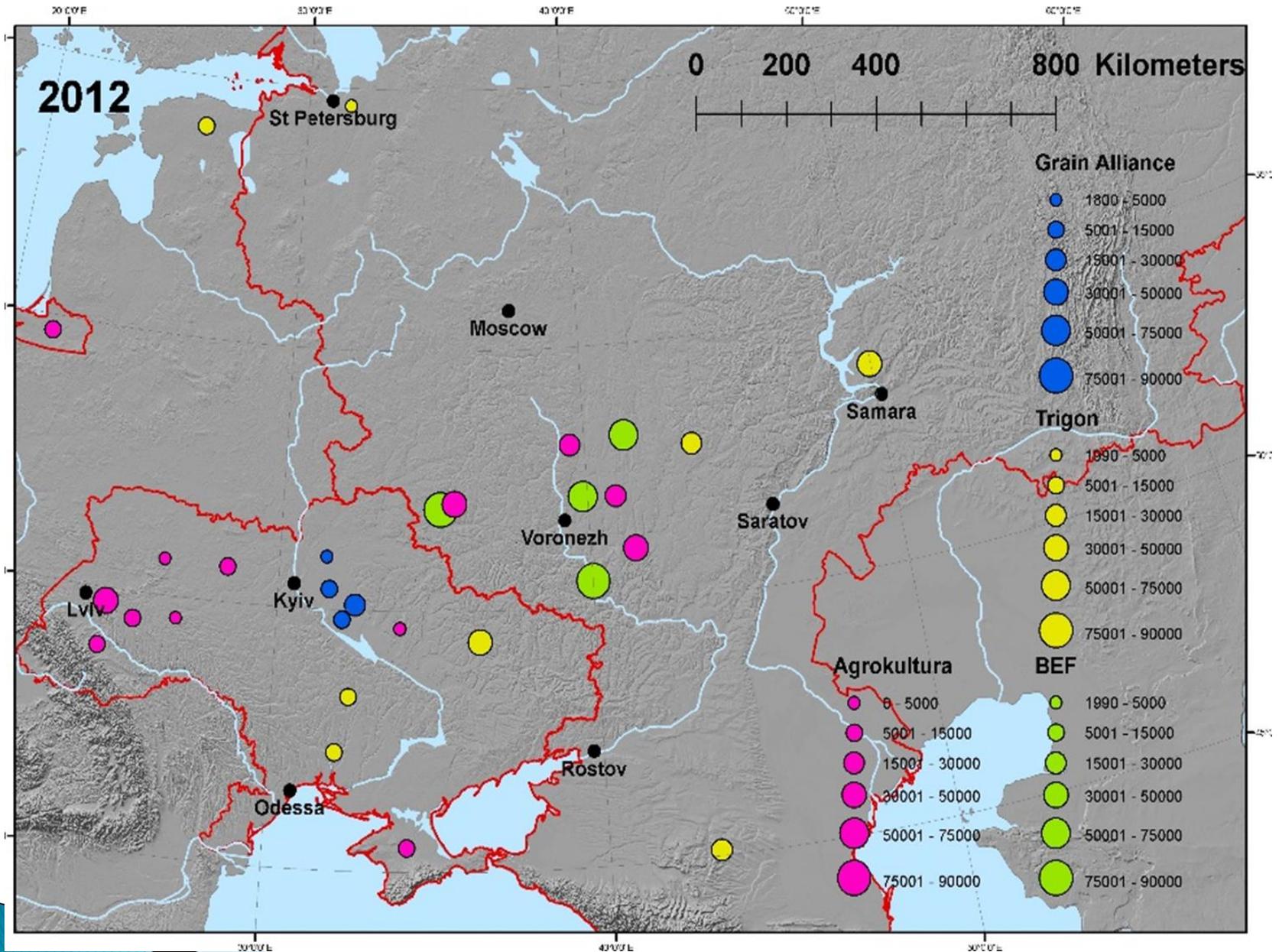
- ▶ Current separation has a long history
- ▶ BEF Roadshow
- ▶ Tsarist era expansion into the steppes (Catherine the Great a.o. (Moon 2013:44))
- ▶ WWII
- ▶ Soviet era (Virgin lands campaign, *bonitet*)

# Ignorance of weather

- ▶ Hardly mentioned in risk assessment & business meeting
- ▶ Soon farmland investments affected by weather volatility
  
- ▶ Trigon Agri:
  - ▶ July: Inundations 'delayed & hurt' early harvest
  - ▶ Aug. to Mid-Nov.: 'dry & very hot', 'no significant rain for about 3 months'
  - ▶ October: 'unseasonal frost'
  
- ▶ Affecting harvest of that year & next one

# Weather: weather hedging

- ▶ Geographical weather hedging
- ▶ Basically means that one doesn't have to take into account agro-climatic circumstances, just look for fertile soil



Source: Kuns, Visser & Wastfelt forthcoming

# Weather hedging: limitations

- ▶ Weather hedging doesn't work (exception Ekoniva)
  - ▶ 'We thought that the black soil is the best thing....' \*\*\*
  - ▶ Shrinking, consolidation
- 

# Separation: social legacy

- ▶ Collective farms;
    - Large farms, large workforce
    - Social institutions, 'marriage' farm & village
  - ▶ Interview(s) farm manager(s)
  - ▶ annual reports (IMC, etc)
  - ▶ Investment promotion video
- 

# Separation: legacy

- ▶ Investor video



# Separation: legacy

- ▶ Investor video: left out – *Soviet legacy*



# Separation: legacy



# Separation: agro-ecological



- ▶ Current separation has a long history
- ▶ Czarist era expansion into the steppes
- ▶ USSR: 'bonitet'

# Separation: physical

- ▶ In narrative & even in practice;
  - ▶ CEO; ‘if it were in Western Europe’
  - ▶ BEF Roadshow
  - ▶ WWII
- 

# Separation: physical



# Physical separation & Geopolitics

- ▶ ‘Sale of Ukraine’ Swedes prepared to purchase Poltava’s Black Earth’

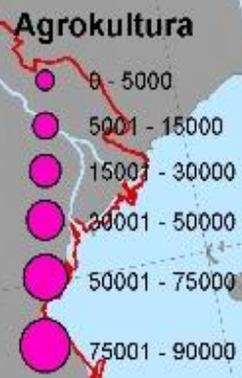
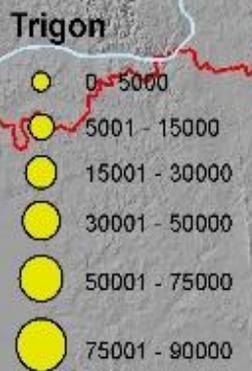
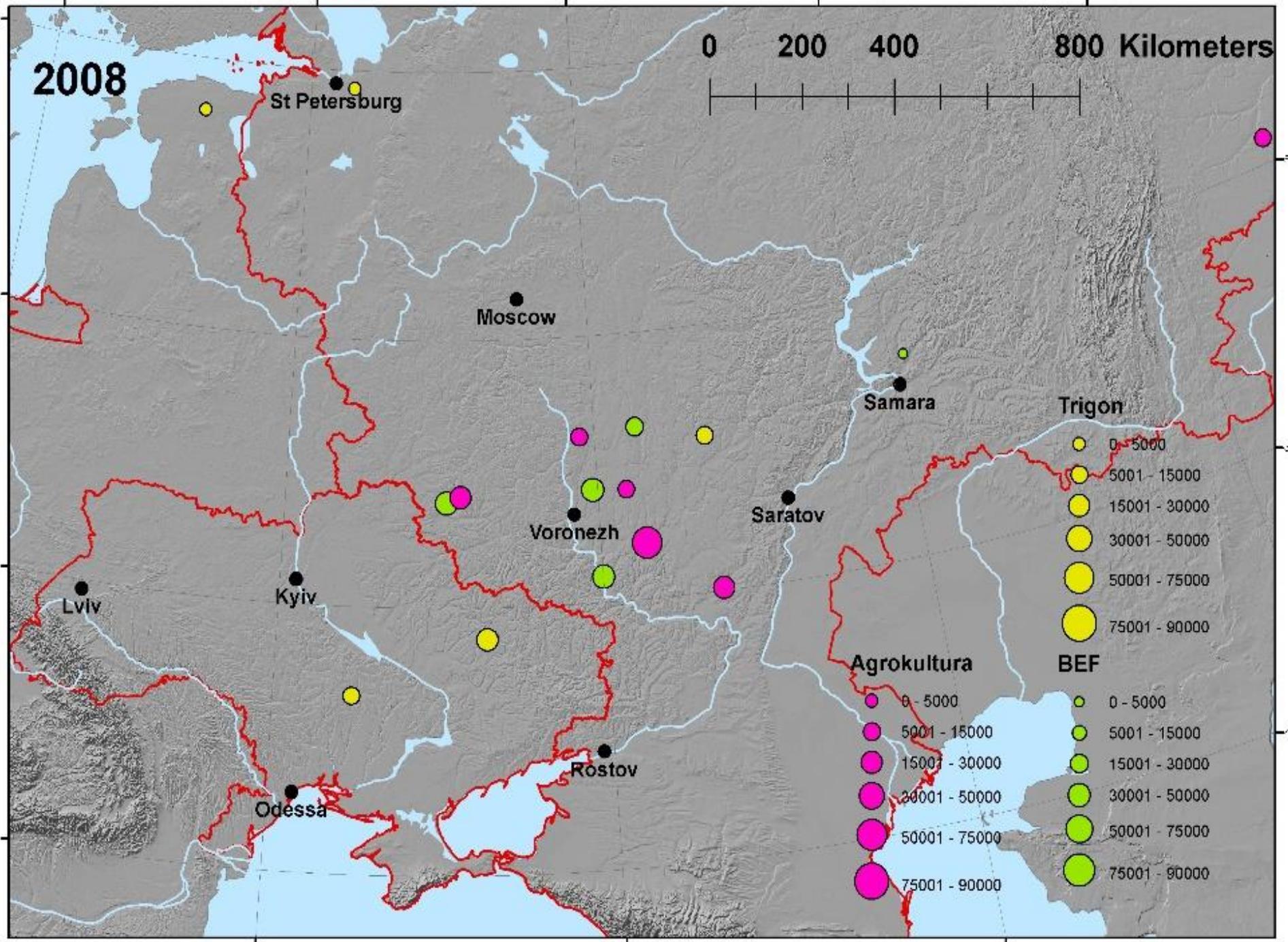


Ратибор Ярополкович

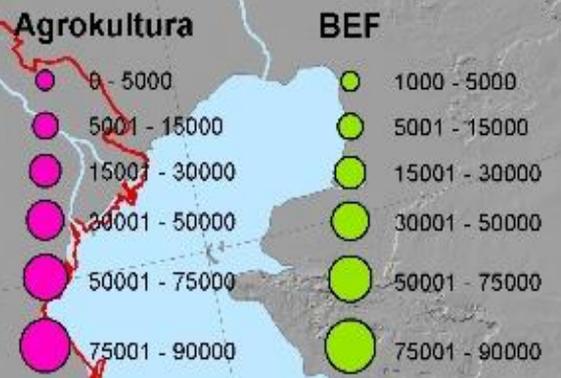
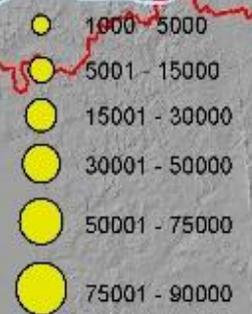
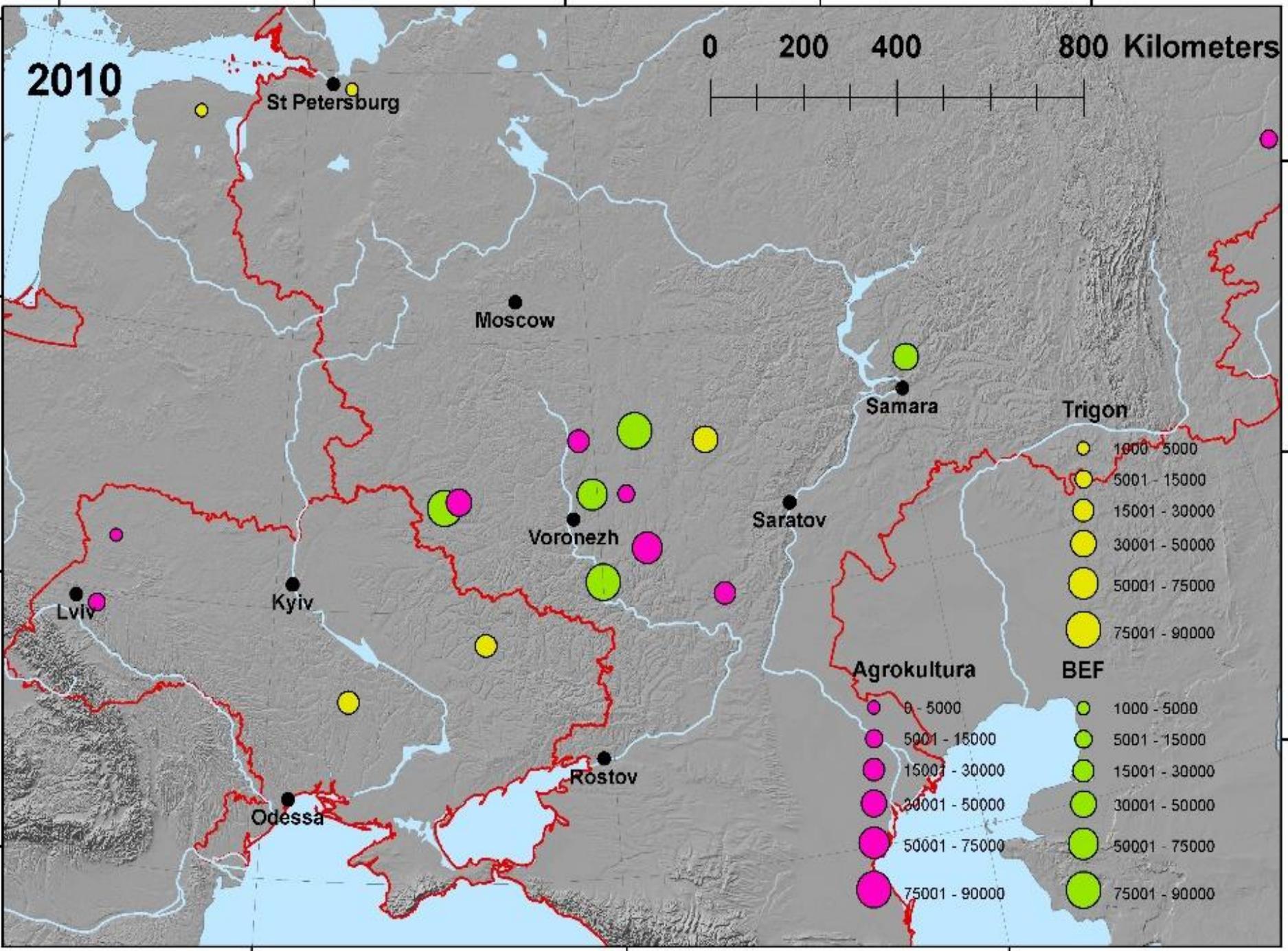
Європа делает столько добра Украине...

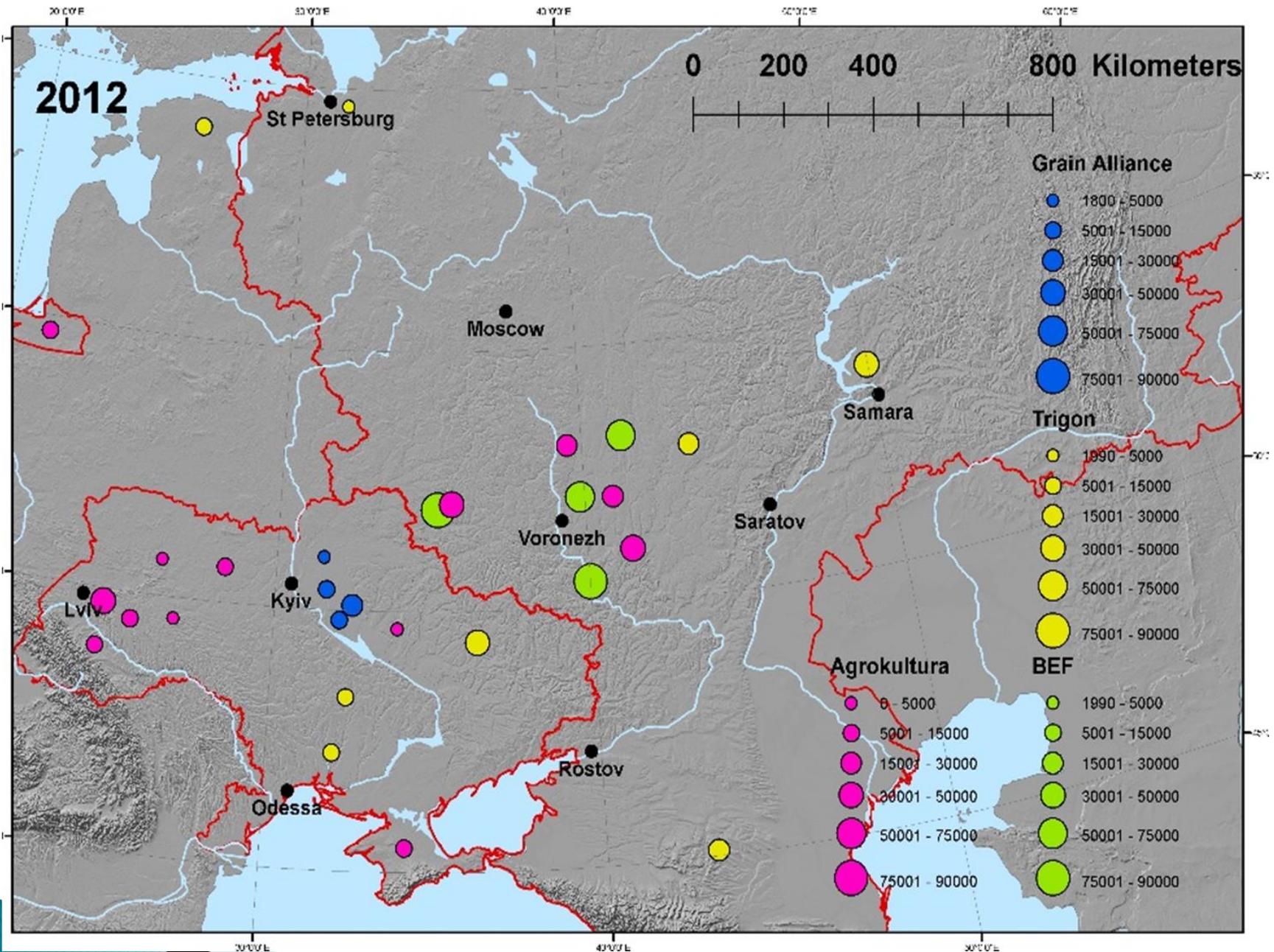
Швеция готова приобрести от 50 до 100 млн. тонн украинского чернозёма, по

2008

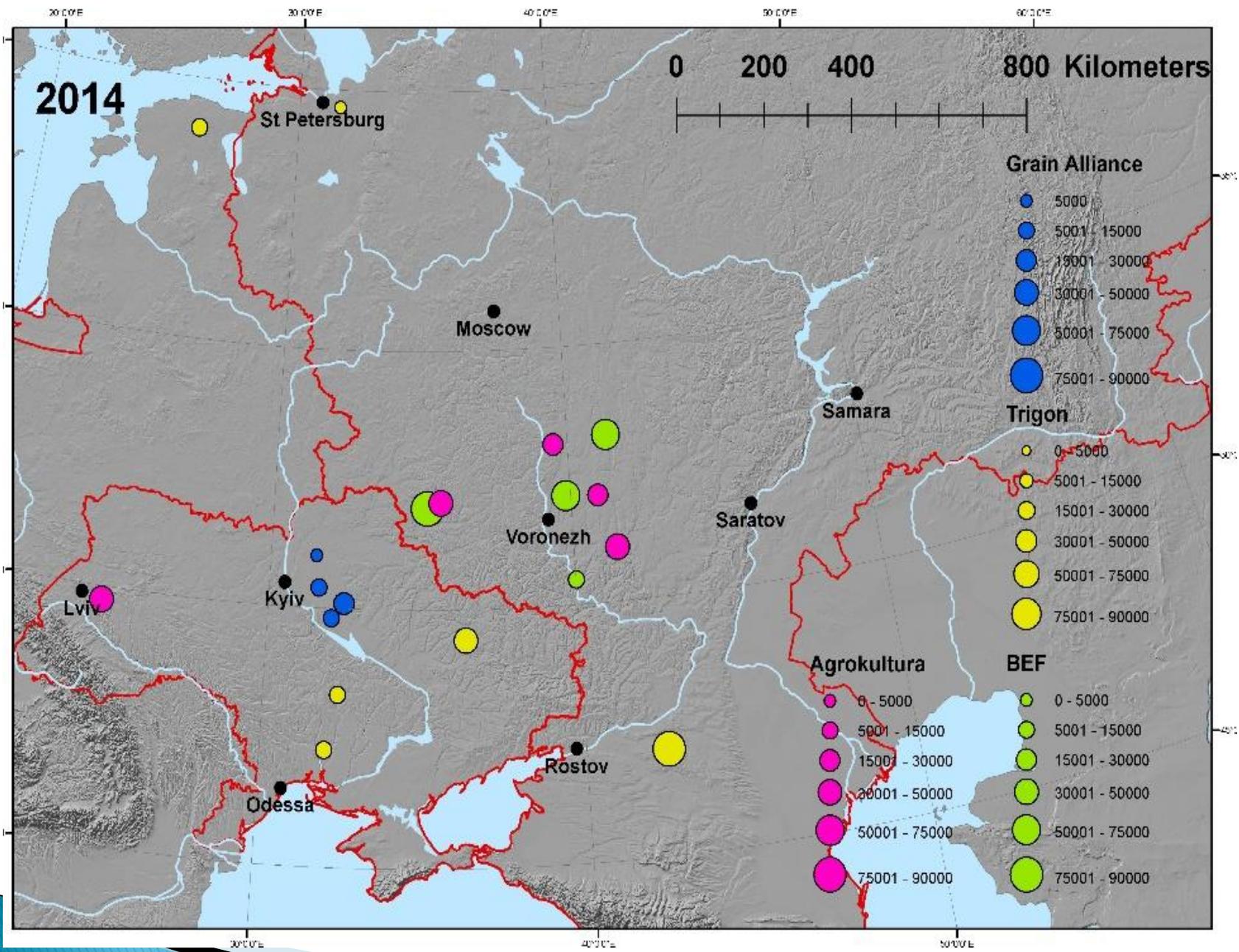


2010





Source: Kuns, Visser & Wastfelt 2016



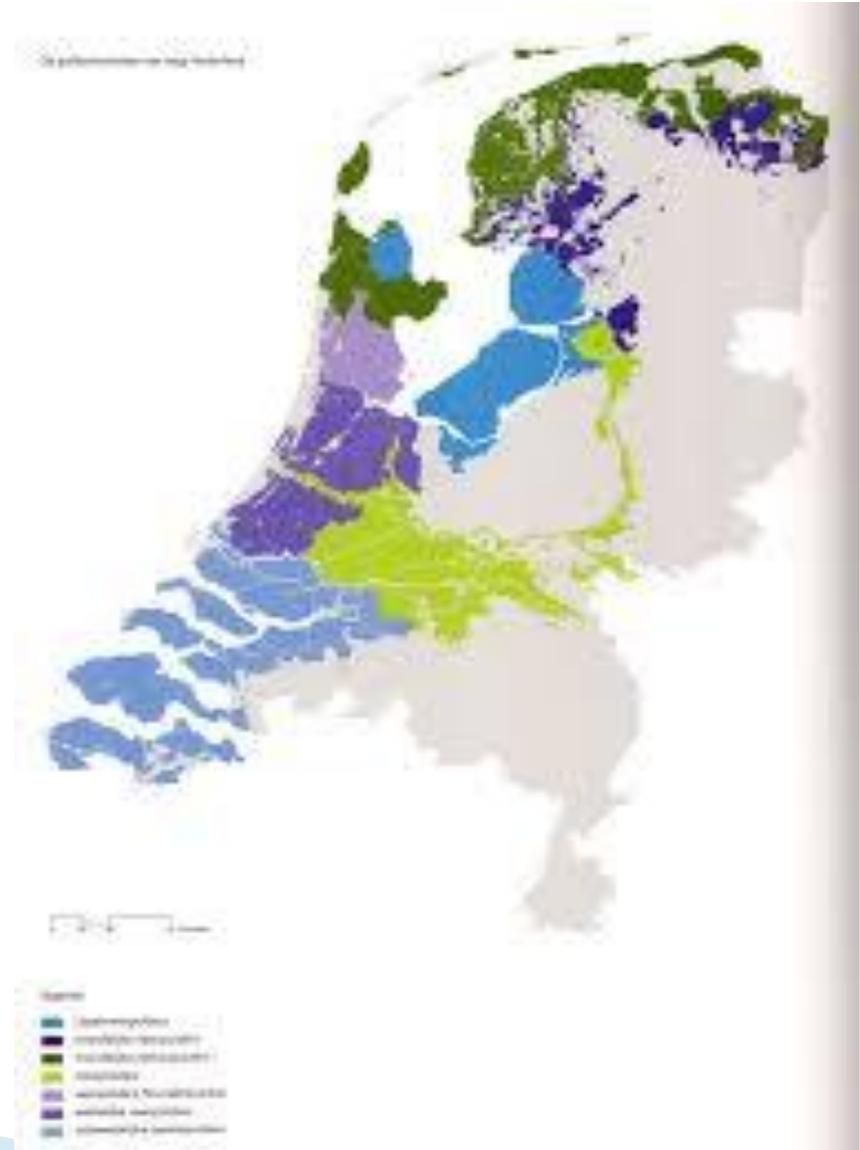
# Moveable farmland

- ▶ Other examples through time & space

# Emergence of 'Polders'

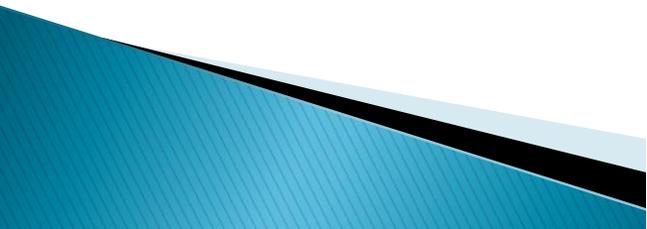
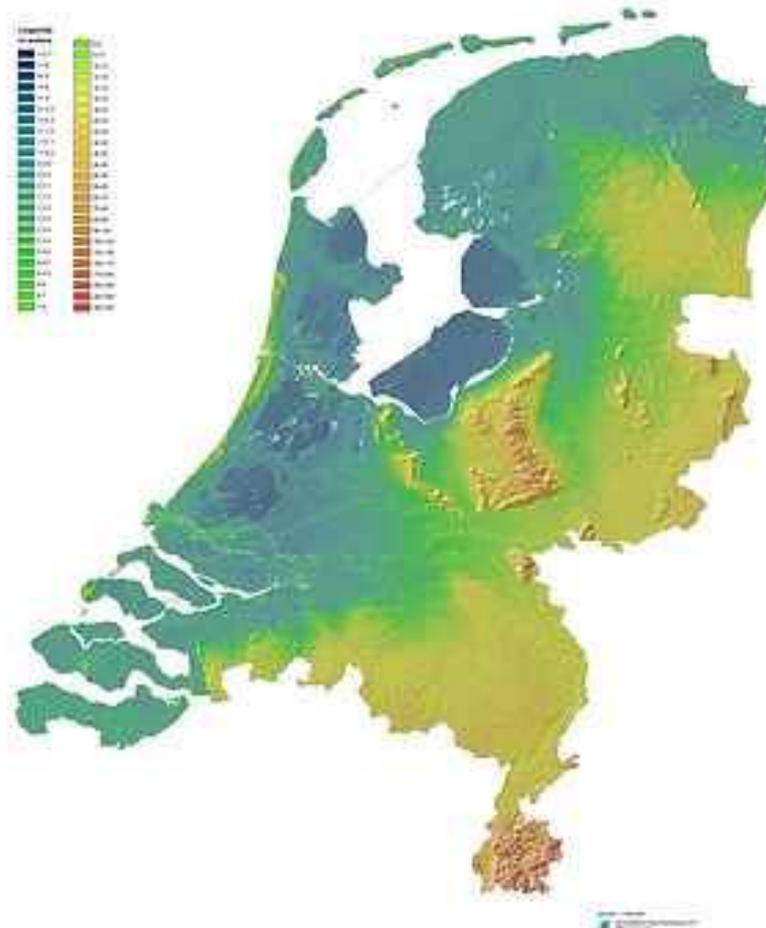
- ▶ Bogs – drainage for agriculture,
- ▶ Polders out of of lakes, riversides and out of the sea.
- ▶ Many lakes emerged earlier due to peat or salt extraction
- ▶ Movement of land;
- ▶ Binary through time (appearance, disappearance)
- ▶ Spatially (horizontal, vertical)

# Emergence of 'Polders'



<http://>

Actueel Hoogtebestand Nederland (AHN)  
met relatief zonduwverhoging



# Chronology of a appearing & disappearing Polder: Hedwige

- ▶ Mid 16th century; made into farmland (polder)
- ▶ 1584; Inundation during war, sea again
- ▶ 1907; made into a polder again
- ▶ 2016–2019; process of de-poldering ‘giving back to nature’

# 'de-poldering' (Zwin)



# ‘de-poldering’: Hedwige



# Norse in Greenland

- ▶ Erosion and peat extraction ('flaying the field')



▶ <http://archaeology.about.com/od/lterms/qt/landnam.htm>  
▶ /artic-images / getty images

# Conclusions

- ▶ High expectations based on abstract idea of farmland, soil
  - ▶ Reality: Low productivity, strong volatility, low profits & management
  - ▶ Standardized comparisons ignored the Soviet history, esp.: social factors & weather & ag.
  - ▶ Making farmland into an asset requires active work of assemblage, and this process can derail during every step
  - ▶ ‘Agency’ of soil (living matter, ‘strikes back’)
- 

# Conclusions (II)

- ▶ While farmland is a fixed asset compared with other natural resources, its fixity is relative
  - ▶ Aside from recent increase in liquidity / flexibilization of farmland through asset making,
  - ▶ Farmland in various settings moved, both in discourse & practice and due to human (partly human) action,
  - ▶ Finally also all kinds of more abstract movement, e.g. virtual farmland displacement
- 

# Conclusions (III):

- ▶ Need to take into account moveability of land
  - In discourses
  - In material practices
    - Horizontal (Black Earth, container farms)
    - Vertical (rooftops)
  - virtual (distant displacement effects) (e.g. Meyfroidt et al 2013) or ‘telecoupling’ (Friis et al 2016, Lui et al 2014)
  - Virtual (statistical) \*
- ▶ Has consequences for a.o. governance;
  - Opposition FDI vs. Domestic
  - From territory to flow based governance (or mixed)
  - Taking into account displacement effects (& time)

more attention for; spatial dimension of financialisation  
(‘distancting’, Clapp 2014) & history

→ Connecting global flows of money & land





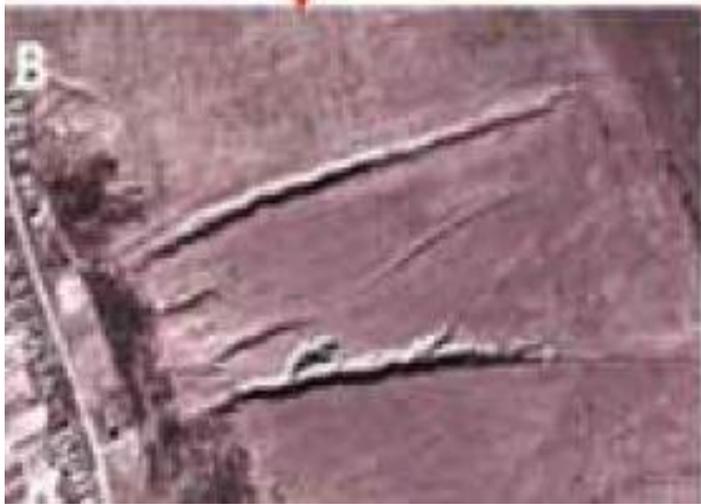
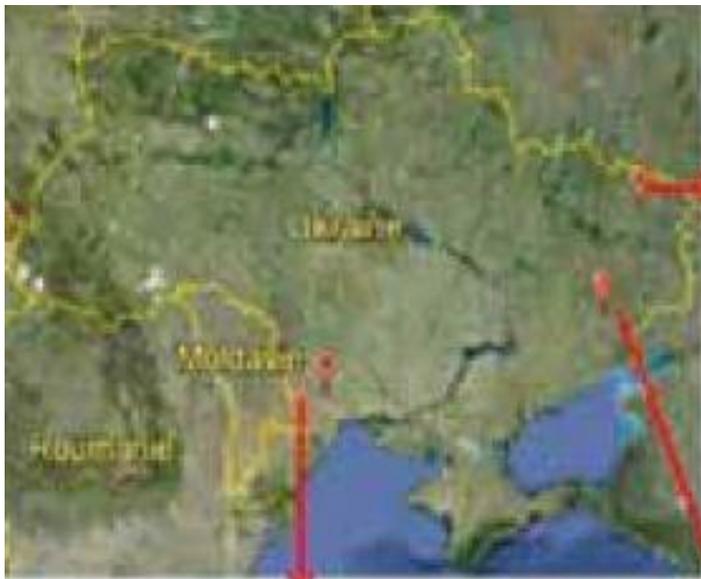
- ▶ Island with more land titles than land
  - ▶ Romania more land in registers than in reality
  - ▶ Distant displacement of land use (Meyfroidt et al 2013)(virtual or indirect land use change) (Chen et al 2015)
  - ▶ Virtual land (Belgian article)
  - ▶ Acidisation -> Cerrado
    - ▶ -> making land (soil)
    - ▶ -> from land to farmland
- 



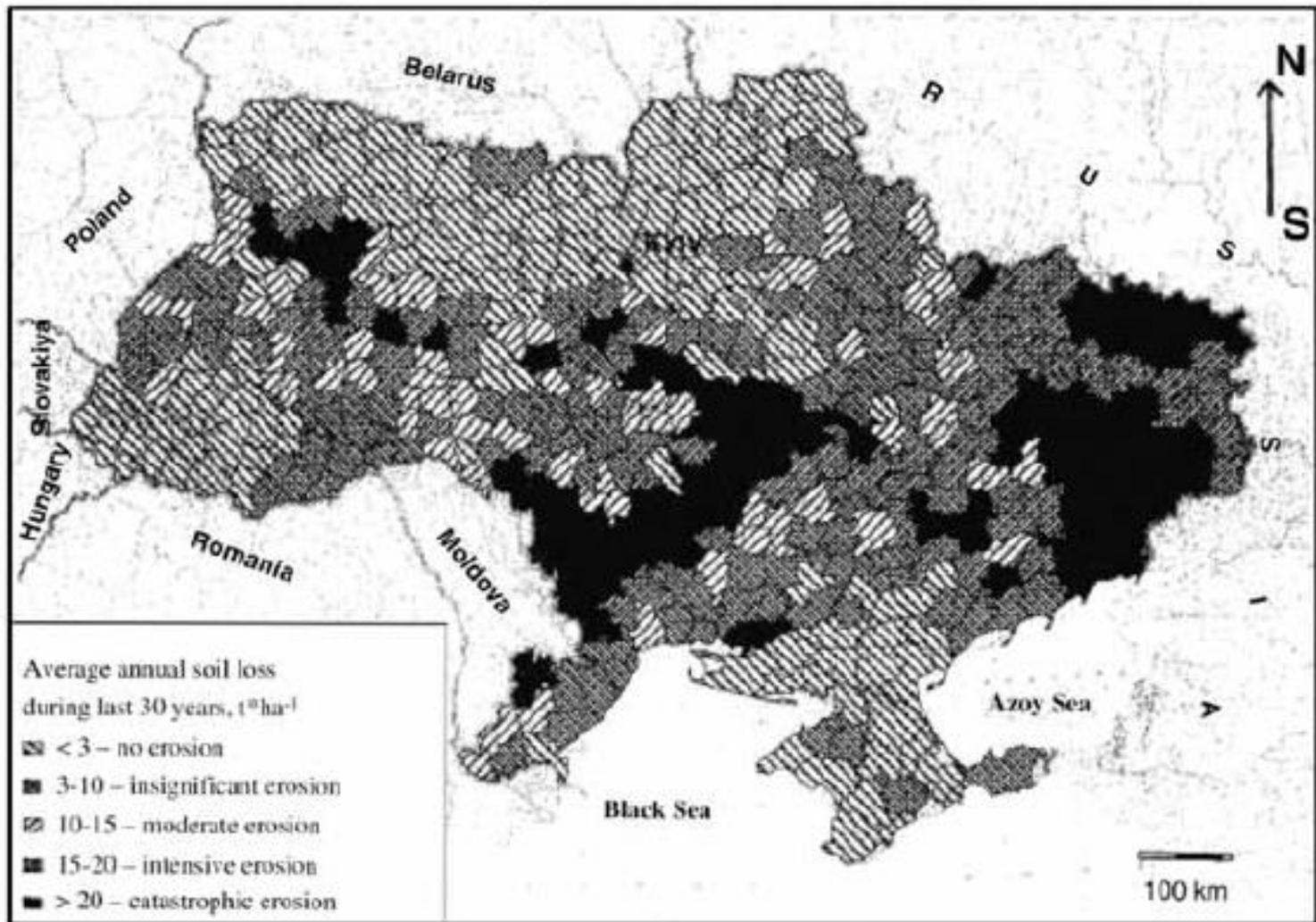
- ▶ Low productivity, strong volatility, low profits & management
  - ▶ Standardized comparisons ignored local factors, history
- 

# Soil erosion

- ▶ Case of Ukraine:
- ▶ Soviet: Annual soil losses in Soviet period 600 million tonnes
- ▶ Post-Soviet: 500 mln. tonnes annually
- ▶ Now 40% of farmland with erosion
- ▶ ‘value of eroded soil each year is around one third of the agricultural GDP’ (WB 2014: 5).  
It means; 10 tonnes of soil for each tonne of grain

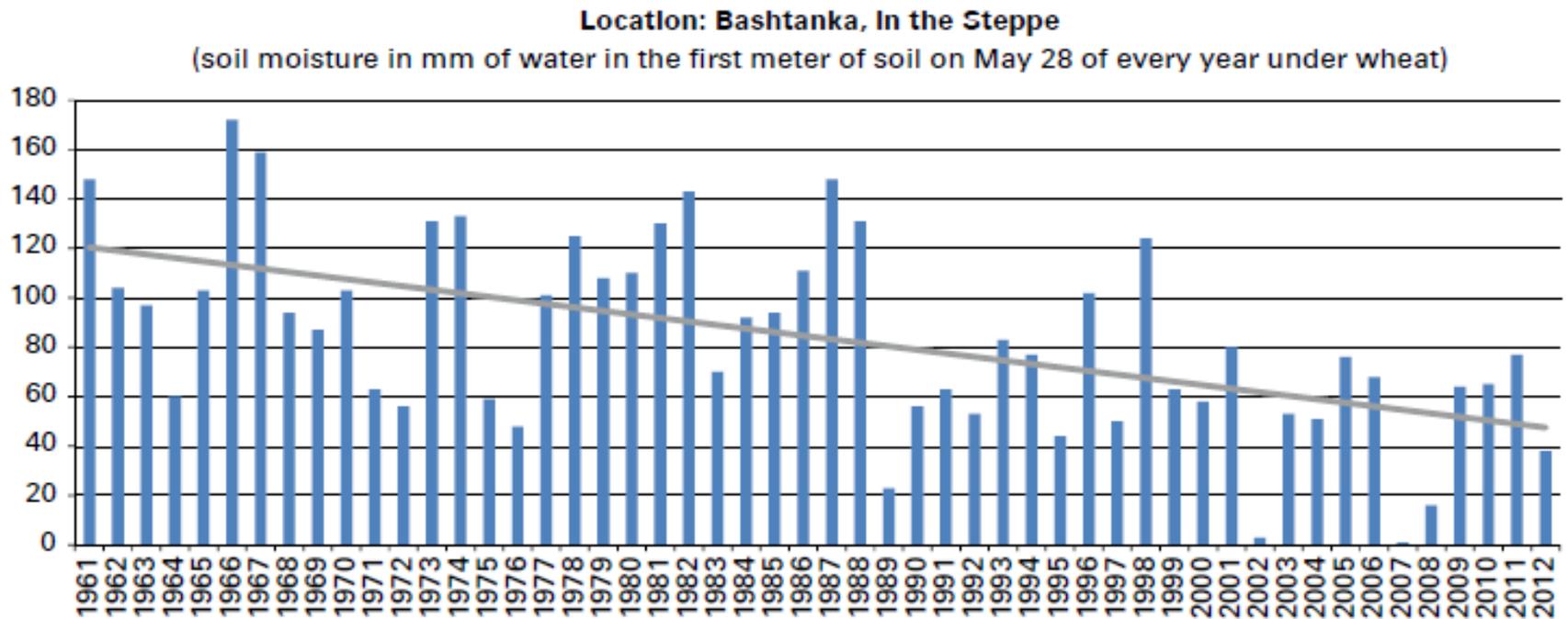


**Figure 7: Average annual soil loss during the last 30 years from Ukrainian arable land**



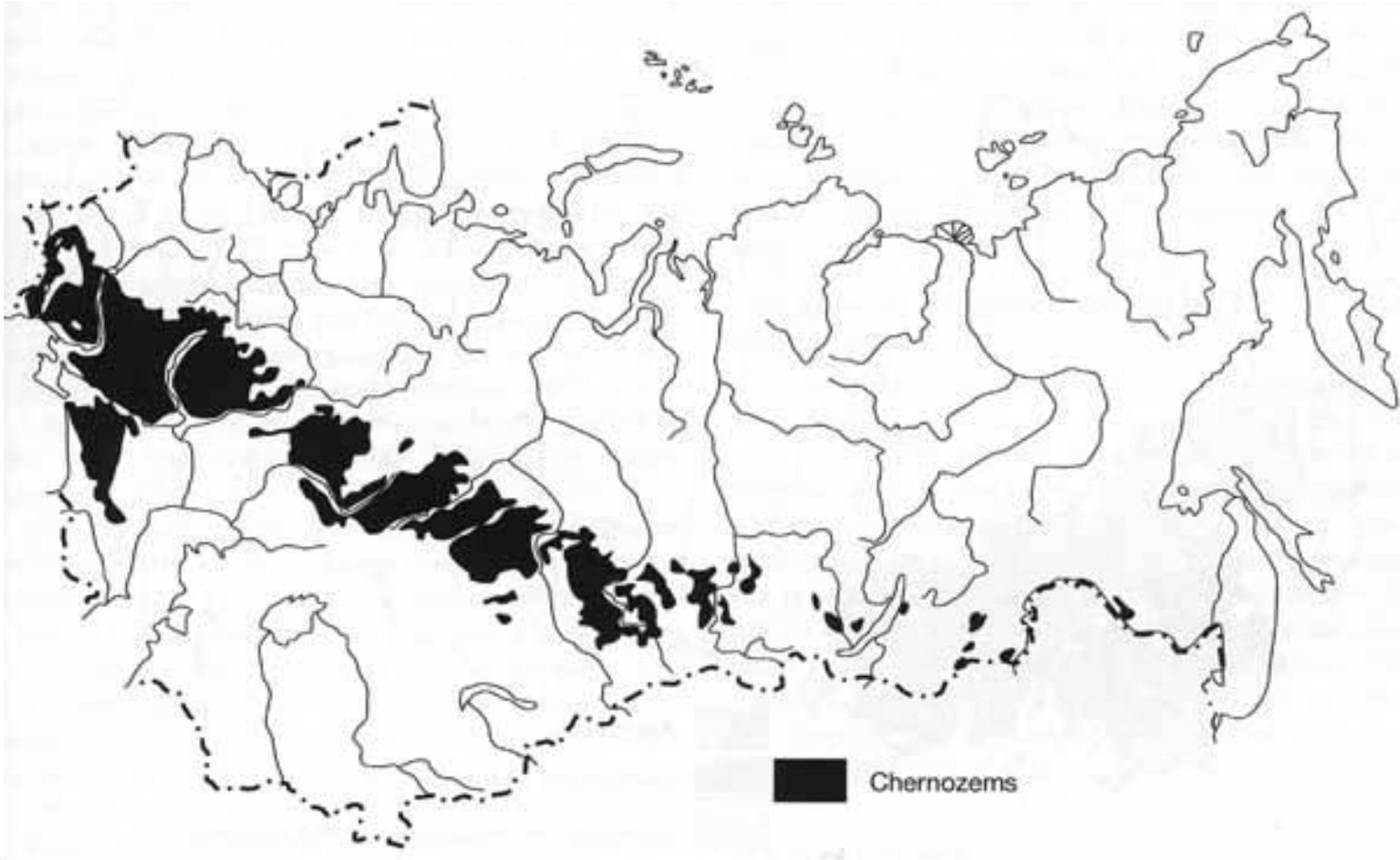
Source: Bulygin, 2006.

# Soil moisture decreases



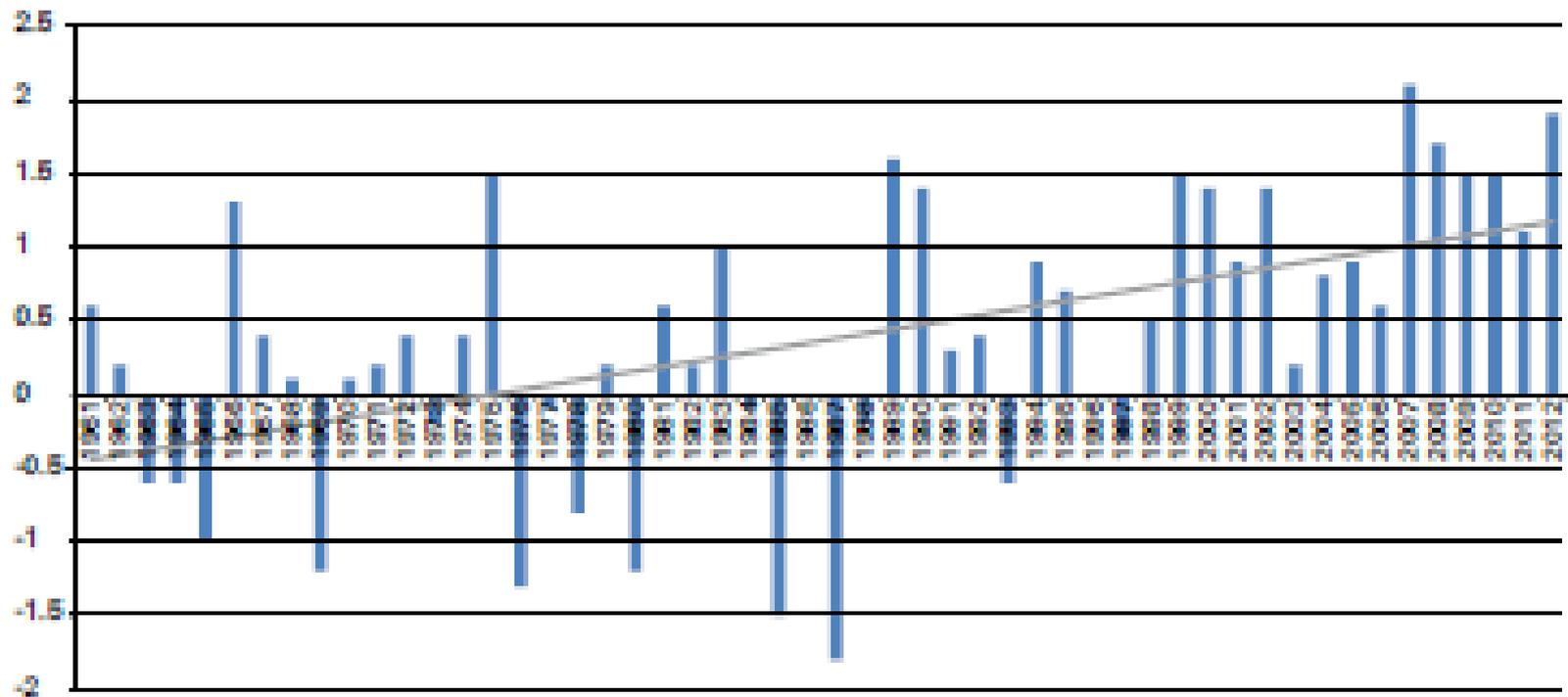
Source: Adamenko 2012, presentation on "Agrometeorological monitoring and climate change in Ukraine."





# Climate change strengthens climate volatility

**Figure 1: The climate of Ukraine is changing, 1961-2012**  
**Average annual air temperature deviation from the norm**



Source: World Bank Climate Change Knowledge Portal.



Share Price Dynamics of Swedish Agroholdings 2013-2014



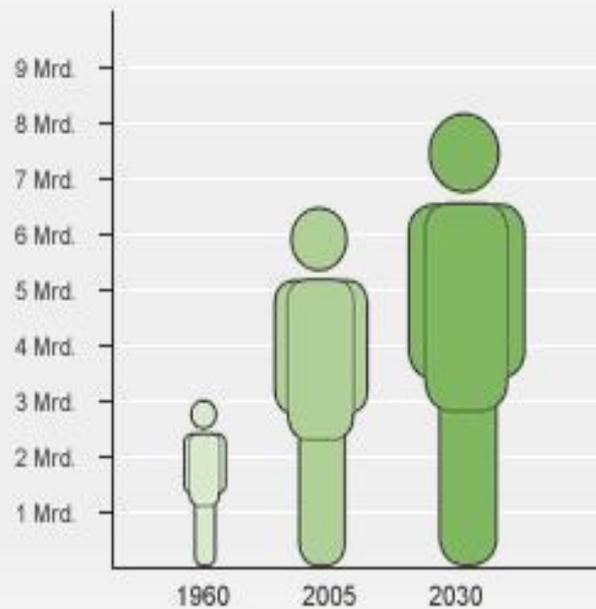
# Asset making



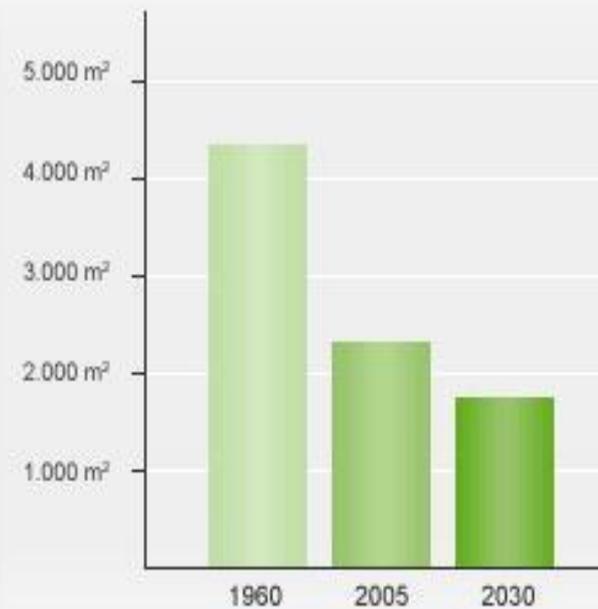
- ▶ ‘Advanced’ commoditization, resource making
- ▶ Farmland long excluded from financialisation.
  
- ▶ Aspects/requirements of asset making:
  - ▶ 1) Potential for profit (outperforming others)
    - –baseline material aspects (soil)
    - –yield gap
  - ▶ 2) Scarcity (real or perceived)
  - ▶ 3) Liquidity (easy to buy, sell)
  - ▶ 4) Standardization (benchmarks, models)
  - ▶ 5) Legitimacy: Framed as acceptable to invest in

# Global Investors' discourse on farmland: scarcity

World population growth



Arable land per capita



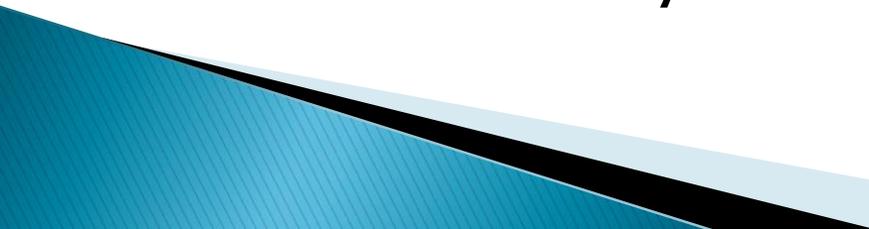
# KNIGHT FRANK INTERNATIONAL FARMLAND INDEX

LOCATION		PRICE NOTES	AVERAGE PRICE/HA	PRICE CHANGE 2010	LAND VALUE RISKS**
ENGLAND		Average all land types	<b>\$22,000</b>	+13%	
ROMANIA		Price dependent on size of holding	<b>\$1,560- \$3,250</b>	0%	
POLAND		Price dependent on size of holding	<b>\$4,550- \$8,125</b>	0%	
UKRAINE		Five- to 10-year lease rights	<b>\$150- \$350</b>	0%	  
RUSSIA		Price dependent on size of holding and progress of freehold application	<b>\$300- \$1,000</b>	-10%	 
ZAMBIA		Long leasehold	<b>\$1,000- \$1,500**</b>	-	 
BRAZIL		Dryland double-cropping in Mato Grosso	<b>\$7,000</b>	+20%*	 
BRAZIL		Top sugar cane land in Sao Paulo	<b>\$12,000</b>	+24%*	 
BRAZIL		Dryland double-cropping in west Bahia	<b>\$6,000</b>	+6%*	 
BRAZIL		Native bush with high cattle potential in Para	<b>\$300</b>	+11%*	 
ARGENTINA		Northern provinces	<b>\$1,200- \$2,500</b>	+10%	 
ARGENTINA		Central provinces	<b>\$5,000- \$10,000</b>	+10%	 
CANADA		Saskatchewan province	<b>\$1,300</b>	+7%*	
AUSTRALIA		Dryland arable with reliable rainfall	<b>\$1,600- \$1,700</b>	+2%	 
NEW ZEALAND		Dairy farms	<b>\$23,000</b>	-3%	
UNITED STATES		Quality dryland in cornbelt states	<b>\$16,000</b>	+8%	

Prices are indicative and will vary widely depending on soil type, local climate and infrastructure. Price changes in local currency could vary widely from stated. \*Price change mid 2009-mid 2010. \*\*Risks exclude normal climate and commodity price fluctuations. Sources: Knight Frank Research, Knight Frank Zambia, Quotable Value, Brown & Co, AgriFrontiers, Philip Jarvis Associates, USDA, Statistics Canada.

POLITICAL   
ECONOMIC 

# Investors' discourse: Russia & FSU

- ▶ Large reserves of fertile but abandoned land, very low price.
  - ▶ “look at the unused farmland in our country: the potential for growth lies literally under our feet!”
  - ▶ “By the end of 2009, all the main agricultural land in Russia will be taken”
  - ▶ “It can be stressed without doubt, that their value will only increase”
- 

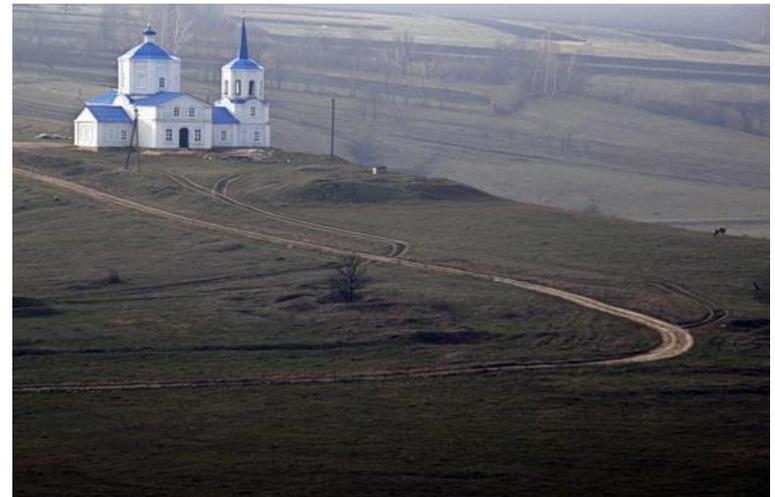
# Scarcity. What scarcity?



- ▶ Interviews with investors & farm managers show;
- ▶ ‘the bad news is that supply of land in Russia greatly exceeds demand..’
- ▶ It’s by far not as booming as (..) in Romania. (..) Prices of land, they might go up. Especially near the cities... But if it comes to ordinary farmland, it’s not really a topic’.
- ▶ After an initial boom (2005–2008) land prices stagnated (2009–).

# Conclusions (2)

- ▶ Need to critically examine figures, graphs & data (as important elements in investor discourse)
- ▶ Surprising fundamental similarity in the opposing discourses on commoditization among investors & opponents (NGOs, critical scholars)



# Farmland prices

## Farmland prices

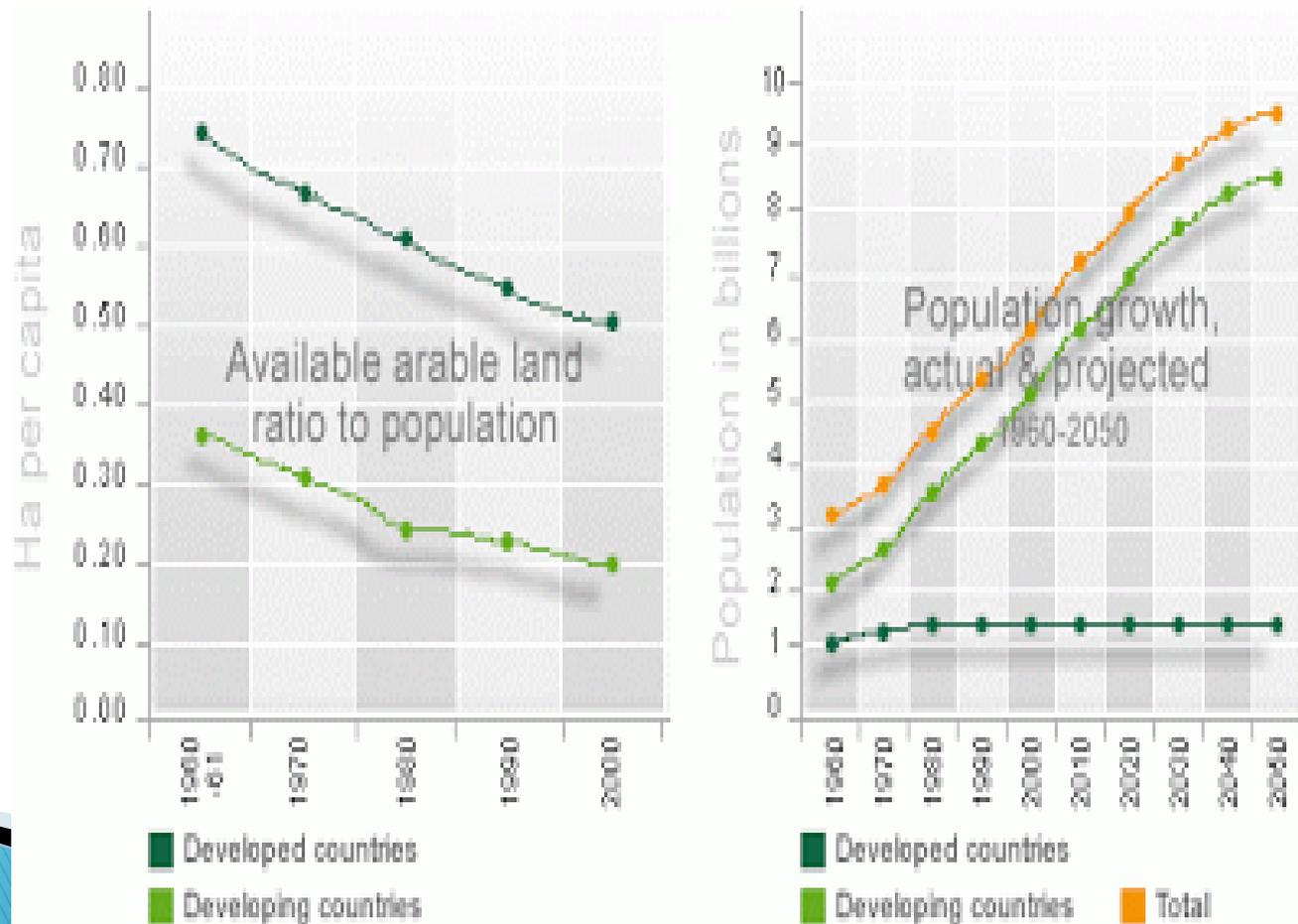
\$ terms, % change on end of previous year



Source: Knight Frank

# Global Investors' discourse on farmland: scarcity (2)

- ▶ Critique of drivers, but hardly of process



# From land banking to 'real farming'



- ▶ Investors (globally & in Russia) primarily interested in land value instead of production
- ▶ low appreciation: exit or shift to real farming
- ▶ Costs: land tax, risk of losing land, interest on loans
- ▶ From 'Land Fund' to...



# Transformative approach: soil & technology



- ▶ investors set out to increase value themselves
  - ▶ Transformative approach: closing yield gap
  - ▶ Assessment of yield increase: focus on soil
  - ▶ Black Earth: so fertile, you can't go wrong
  - ▶ Reducing 'land' (& farm investment) to 'soil'
- Soil + finance (technology & management) =  
yield increase = land appreciation
- ▶ Low productivity, profits & management

# Farmland for sale



# Commoditisation & Resource making



- ▶ Not a one-way process (e.g. Appadurai)
- ▶ a human process (Zimmerman), BUT materiality sets limits (Barry 2005, R &W 2013)!
- ▶ a multi-step process
- ▶ process of abstraction (separation, reduction, standardisation)
- ▶ on material & conceptual levels (concept 'land')
- ▶ thus natural resource is 'an assemblage of materialities, relations, technologies & discourses' (Li 2012)



**ACQUIRE**



**DEVELOP**



**FARM**