

Wheat Value Chains and Food Security in the MENA Region

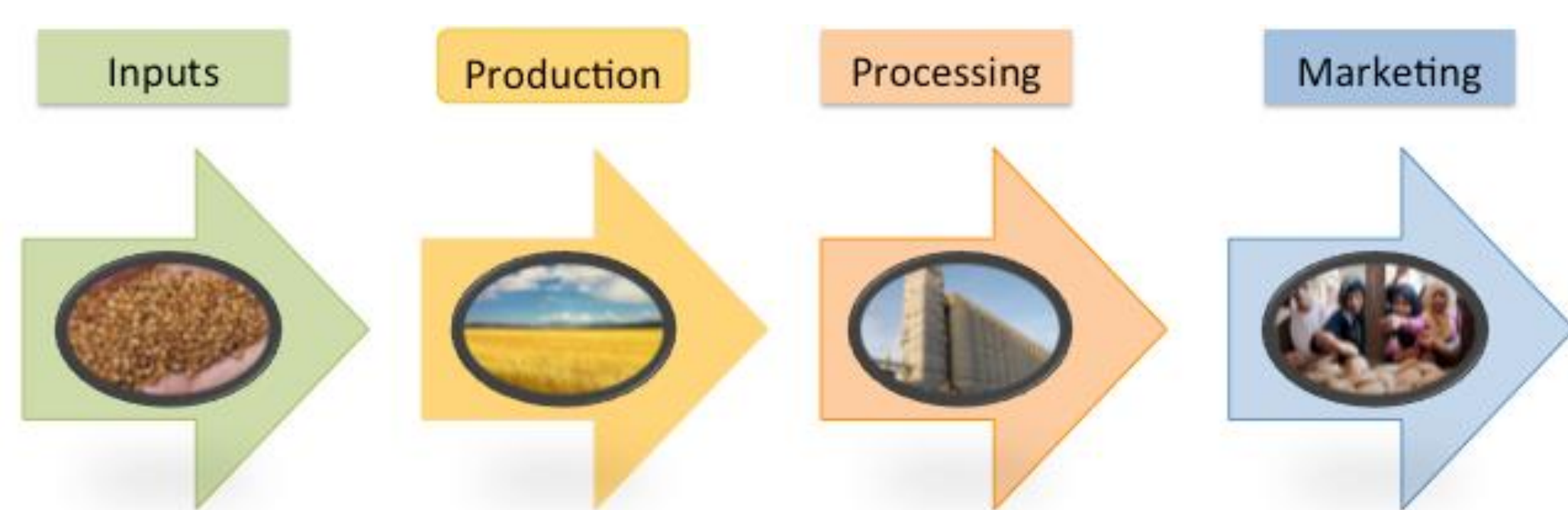
Ghada Ahmed, Danny Hamrick and Gary Gereffi – Duke CGGC at SSRI
Lincoln Pratson and Drew Haerer – Nicholas School of the Environment at Duke



Project Overview

- **Multi-year project** supported by US Dept. of Defense MINERVA Initiative and Army Research Office for University-Led Research
- **Collaboration with the Nicholas School of the Environment** to study food security in the Middle East and North Africa (MENA)
- **Food security is a major challenge** facing countries in the MENA region. MENA is the largest wheat-importing region in the world.
- **Rank food security of MENA countries** based on multiple variables and data sources
- **Apply GVC approach to identify vulnerabilities and leverage points** in key food commodities in MENA countries
- **Identify risks and strategic options** to improve food security in the region

Global Value Chain Analysis



- Trace the **geographic spread** of production
- Map the **ecosystem** of firms, institutions, and policies
- Analyze **governance structures & enabling environment**
- Determine **upgrading trajectories and bottlenecks**
- Address **economic, social and environmental** challenges

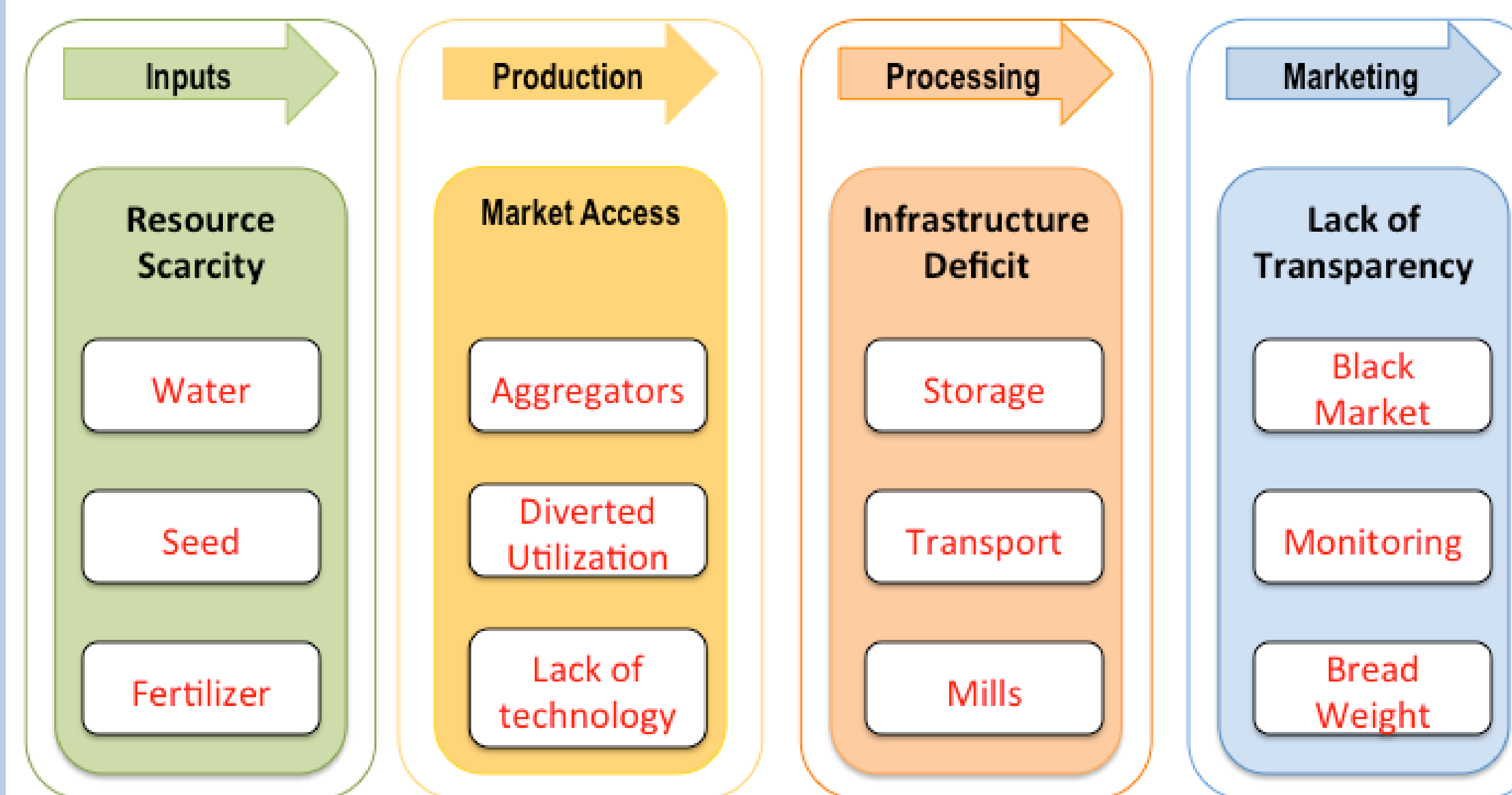
Key Risk Factors in MENA for Food Security

Productive Capacity	Infrastructure & Services	Business Environment	Trade & Investment Policy	Institutional Elements
<ul style="list-style-type: none"> • Land • Water • R & D • Access to inputs • Agricultural Policies • Standards & certifications 	<ul style="list-style-type: none"> • Transportation • Storage • Ports • ICT • Energy • Government Coops 	<ul style="list-style-type: none"> • Country & regional stability • Public governance • Grain tenders • Access to finance 	<ul style="list-style-type: none"> • Trade policies • Foreign reserves • Market access • Export-import procedures • Border transit times • Industry specific policies 	<ul style="list-style-type: none"> • Public-private coordination • Subsidies & price controls • Monitoring & accountability • Marketing

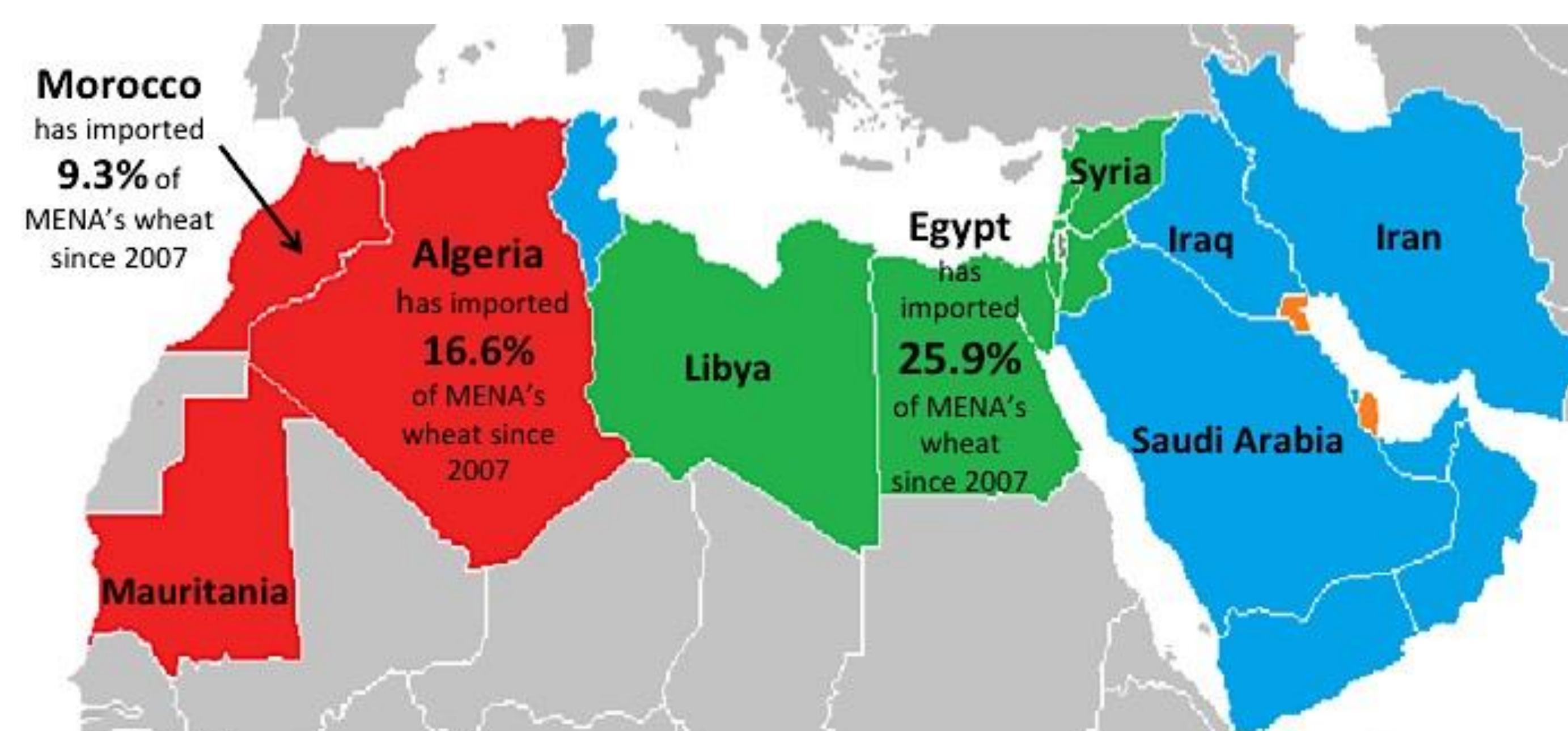
Government Control

Bottlenecks in Egypt's Wheat Value Chain

- **Government and market failures** are putting the wheat value chain in Egypt at risk
- **Policies are reactive** and do not reflect changes in global markets
- **Market risks** include shifts in supply, market structure and price volatilities
- **Vulnerabilities on the marketing side** of the chain impact social stability



Wheat Import Patterns into MENA

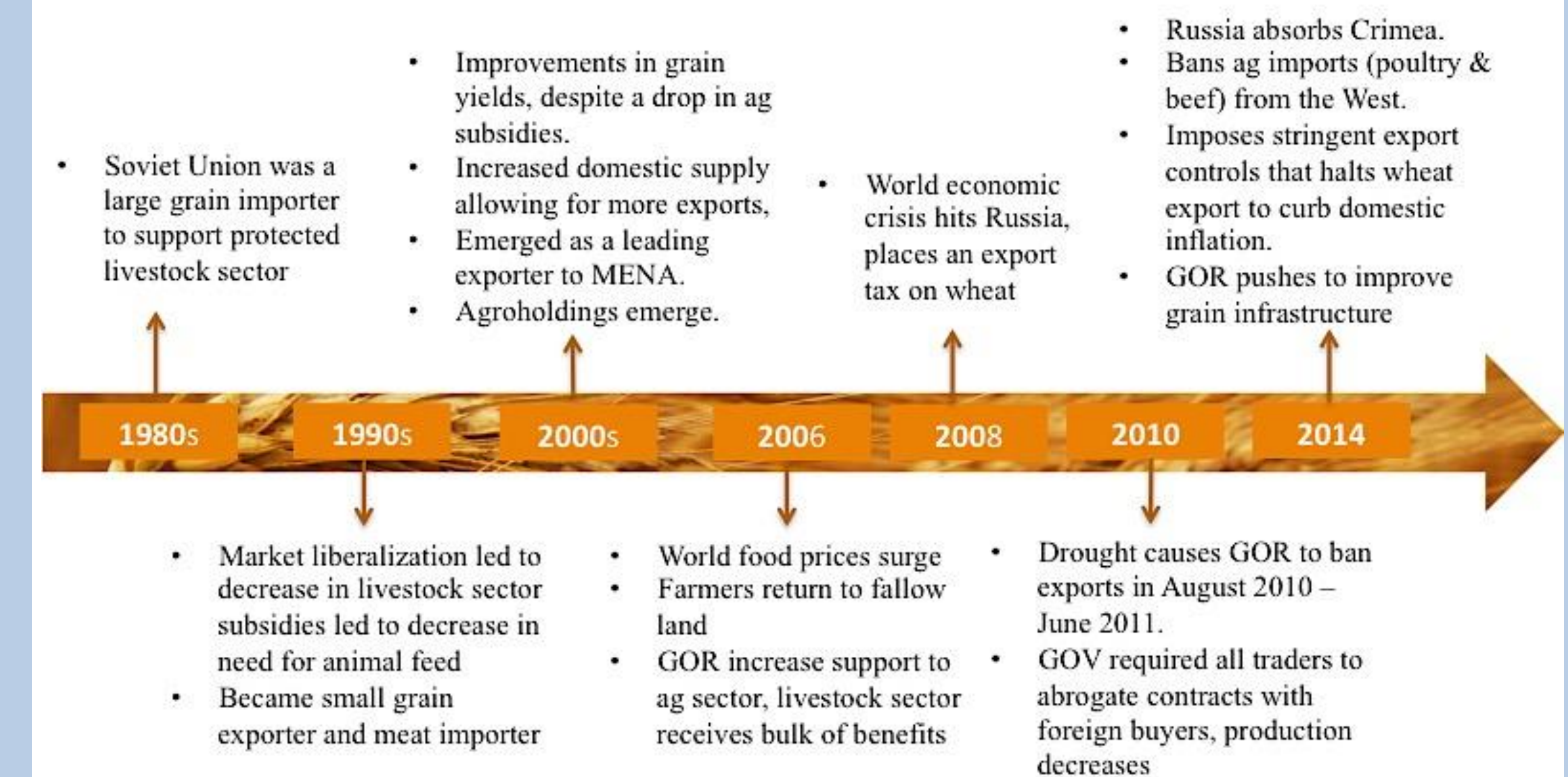


Different regions within MENA rely on different countries as their leading source of imported wheat. Depending on the country, these relationships have persisted since 2007

Russia France No stickiness Australia

- **Russia is an important trade partner** for grains in MENA
- **Logistics and competitive grain prices** are key to MENA
- **Dependency on Russia or single source country is risky** due to shifts in policies and weather conditions
- **Access to foreign currency is fundamental** to purchasing wheat in international markets and having diversified sourcing

Russia's Wheat Value Chain



- Agriculture is a priority sector in Russia
- Russia became a major global supplier in the early 2000s
- Weather, storage and transport are primary challenges
- Large agro-holdings dominate production and trade with MENA
- Multi-national grain players are investing in grain exports from Russia
- Ukraine has better export infrastructure and is an important supplier of animal feed grains

2014 Russian Wheat Value Chain Vulnerabilities



2014 Ukraine Wheat Value Chain Vulnerabilities



Next Steps

- **Expand project to look at Maghreb sub-region** with a focus on Morocco and Algeria to uncover chain disruptions and implications on social stability
- **Conduct social network analysis** on the relationship between exporting firms in the Black Sea region and importing actors in MENA using information from field interviews
- Compare and identify the roles that private versus public actors play in **the grain chain resilience in MENA**