

# APEX

## Partner of Choice



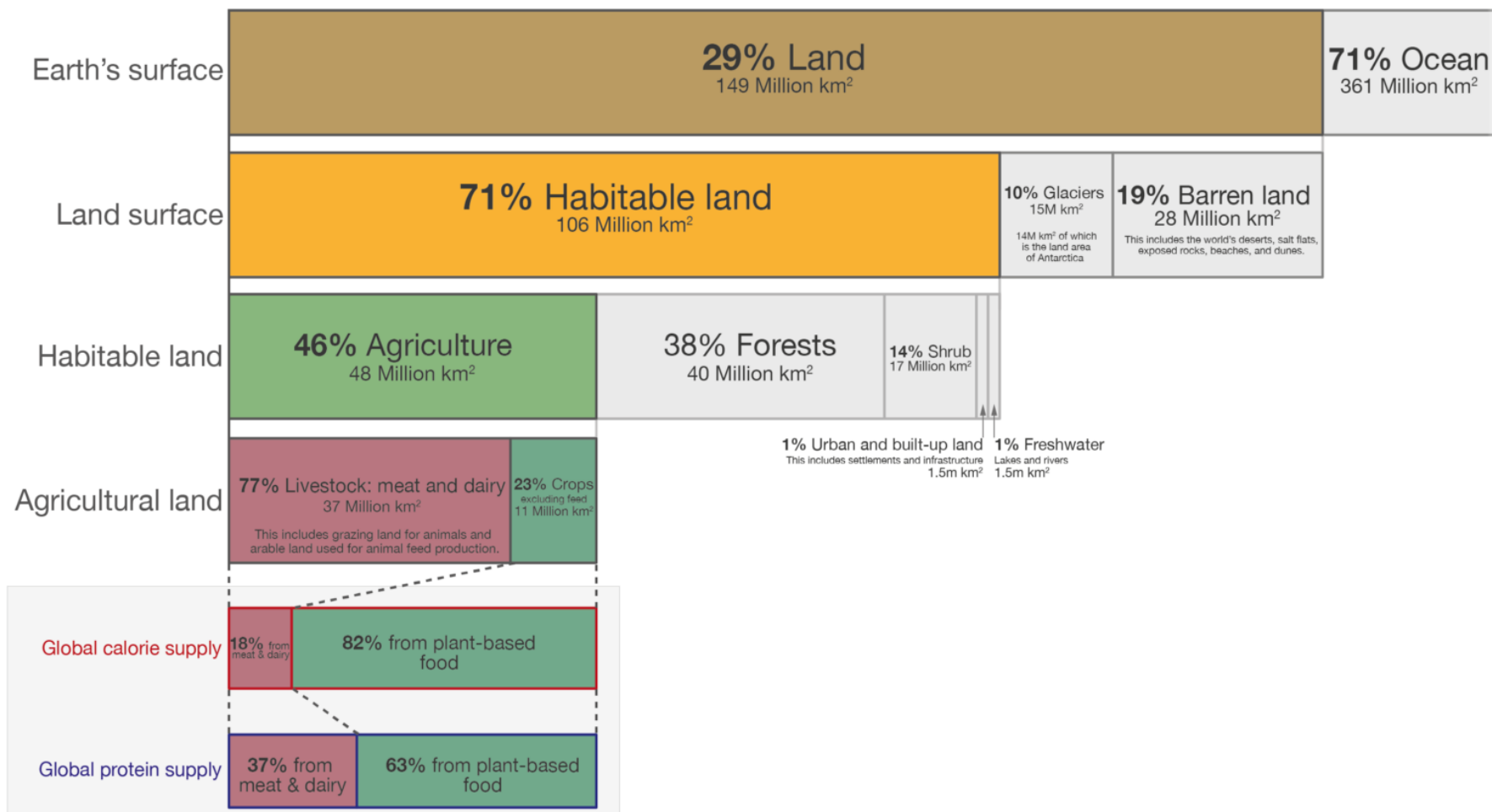
SIGNATORY TO THE PRINCIPLES  
FOR SUSTAINABLE INSURANCE

# AGRICULTURE

- Food production occupies 50 per cent of the Earth's habitable land
- accounts for 70 per cent of freshwater consumption and produces around a quarter of global greenhouse gas (GHG) emissions.
- Food production is a major driver of biodiversity loss and of air and water pollution, deforestation, soil degradation, antibiotic-resistant bacteria and water scarcity.
- Food loss and waste amount to between 25 and 30 per cent of total food production and account for between 8 and 10 per cent of GHG emissions
- A sustainable transformation of food and agricultural systems is required globally at all levels

# Global land use for food production

Our World  
in Data



Data source: UN Food and Agriculture Organization (FAO)

OurWorldinData.org – Research and data to make progress against the world's largest problems.

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Date published: November 2019.

# **AGRICULTURE**

**Agriculture continues to bear the brunt of disaster impacts as new risks and correlations emerge**

**Extreme weather disasters such as droughts and floods are predicted to become more common as a result of climate change**

# **AGRICULTURE INSURANCE**

**Agricultural insurance is set up to safeguard crops and livestock against natural catastrophes, climate change, floods, severe rains, diseases, pests, and other factors.**

**Agricultural insurance protects farmers from losses resulting from crop and livestock damage**

# AGRICULTURE INSURANCE COVERS

- (1) Multi-peril crop insurance (MPCI); a traditional indemnity insurance product against all perils at farm level in which the pay-outs are determined through a farm-level loss assessment process. MPCI transaction cost and moral hazard level are high but basis risk is low and claim settlement time is medium;**
- (2) Area Yield Index Insurance (AYII); a crop insurance product based on average losses at the regional level, rather than farm level. The pay- outs are based on crop cutting experiments. Its transaction cost, basis risk and claim settlement time are medium. However, the moral hazard level is low; and 14**
- (3) Weather Index Insurance (WII); a crop insurance based on weather parameters such as rainfall, temperature, or soil moisture correlated with farm-level yields or revenue outcomes. Its transaction cost, moral hazard level and claim settlement time are low with high basis risk.**
- (4) Index based Livestock insurance; which uses NDVI values to asses seasonal availability of forage that can sustain livestock.**
- (5) Individual animals' insurance; where an animal keeper insures specified risks for a particular animal.**

# **MENA AGRICULTURE AND FOOD SITUATION**

- **over 55 million of its population of 456.7 million was undernourished.**
- **In 2020, MENA's share of the world's acutely food insecure people was 20%**
- **66% of people expected to be living in cities by 2030.**
- **the agricultural sector produces less than 10 percent of total value added,**
- **22% of total employment,**

# JORDAN AGRICULTURE PERFORMANCE

Agriculture-based revenues are critical to Jordan's economy, contributing to 28% of GDP and an estimated 18% of total exports.

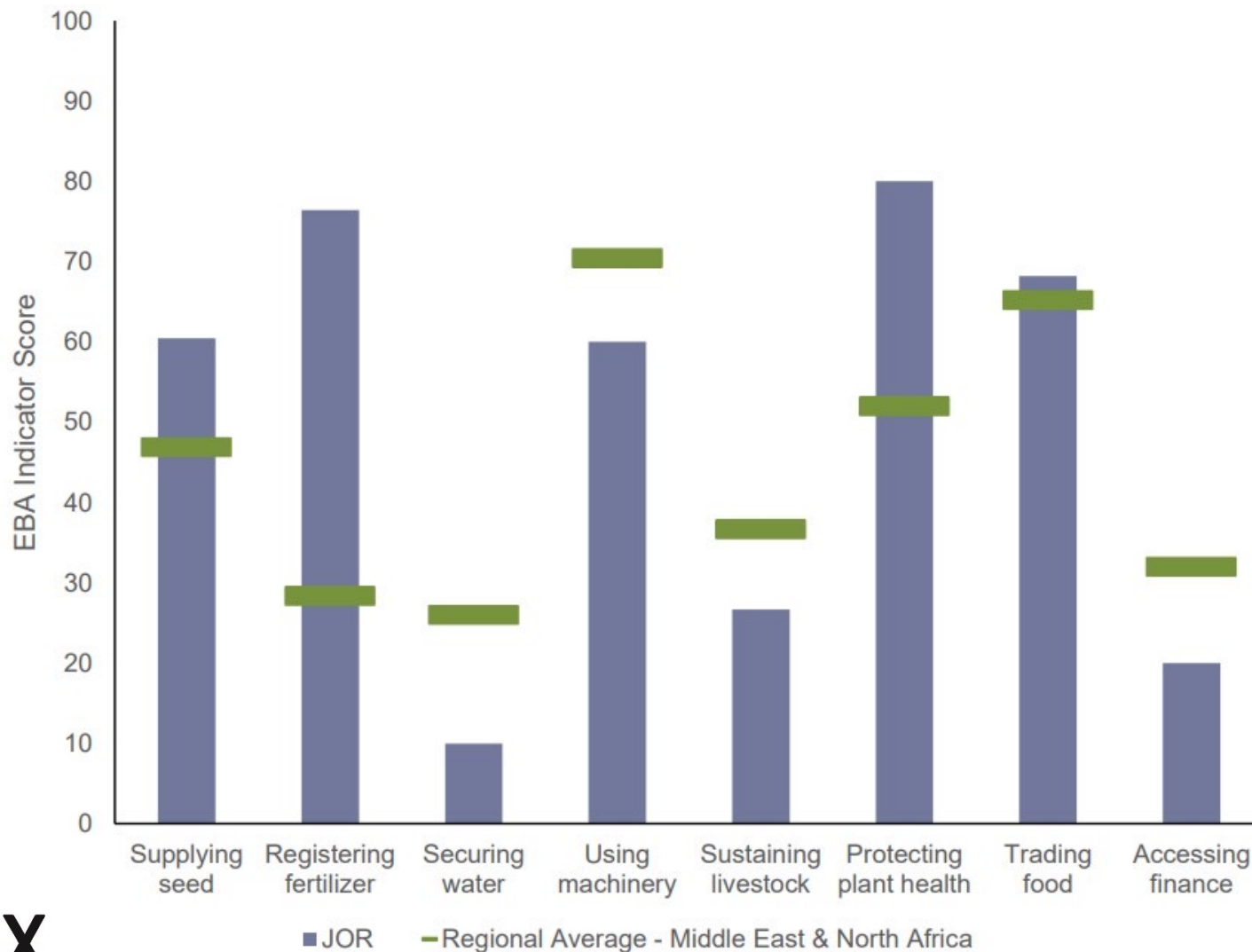
approximately 2.6% of Jordan's total land surface is considered cultivable (a reduction from 3.5% reported in 1988)

The country imports 81% of its total food requirements, including 90% of its annual cereal demands and approximately 80% of its animal fodder requirements



# JORDAN AGRICULTURE PERFORMANCE

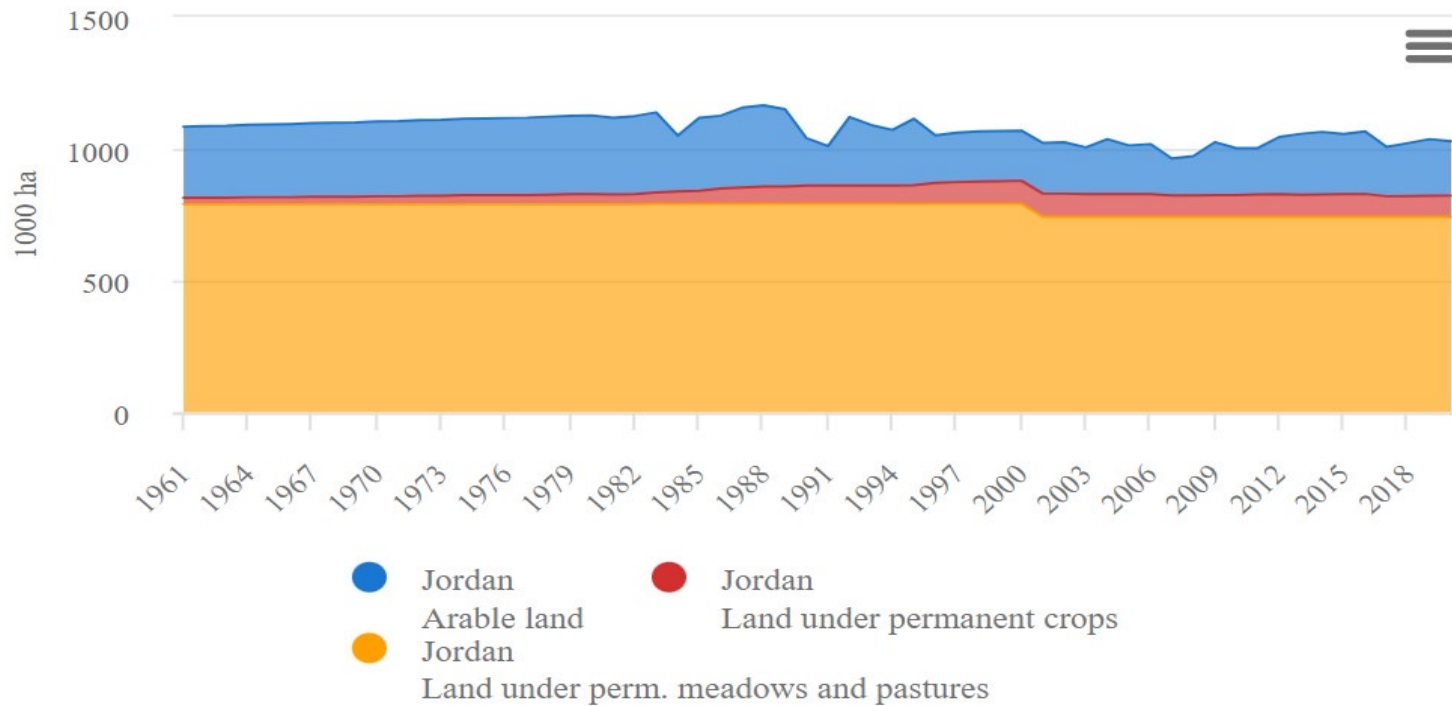
Performance by indicator area - Jordan



# AGRICULTURE IN JORDAN

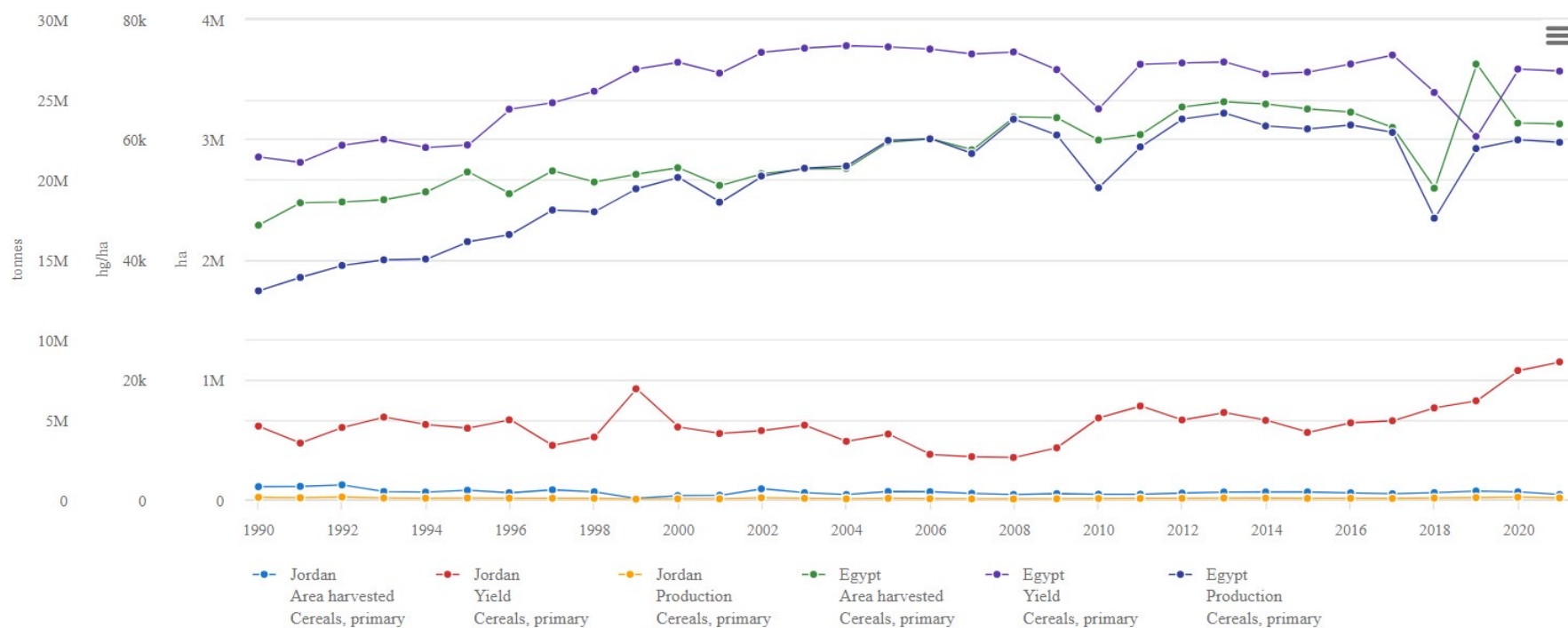
## Agricultural Area

1961 - 2020



# CEREAL CROP- JORDAN COMPARISON WITH EGYPT

Timeseries on selected data

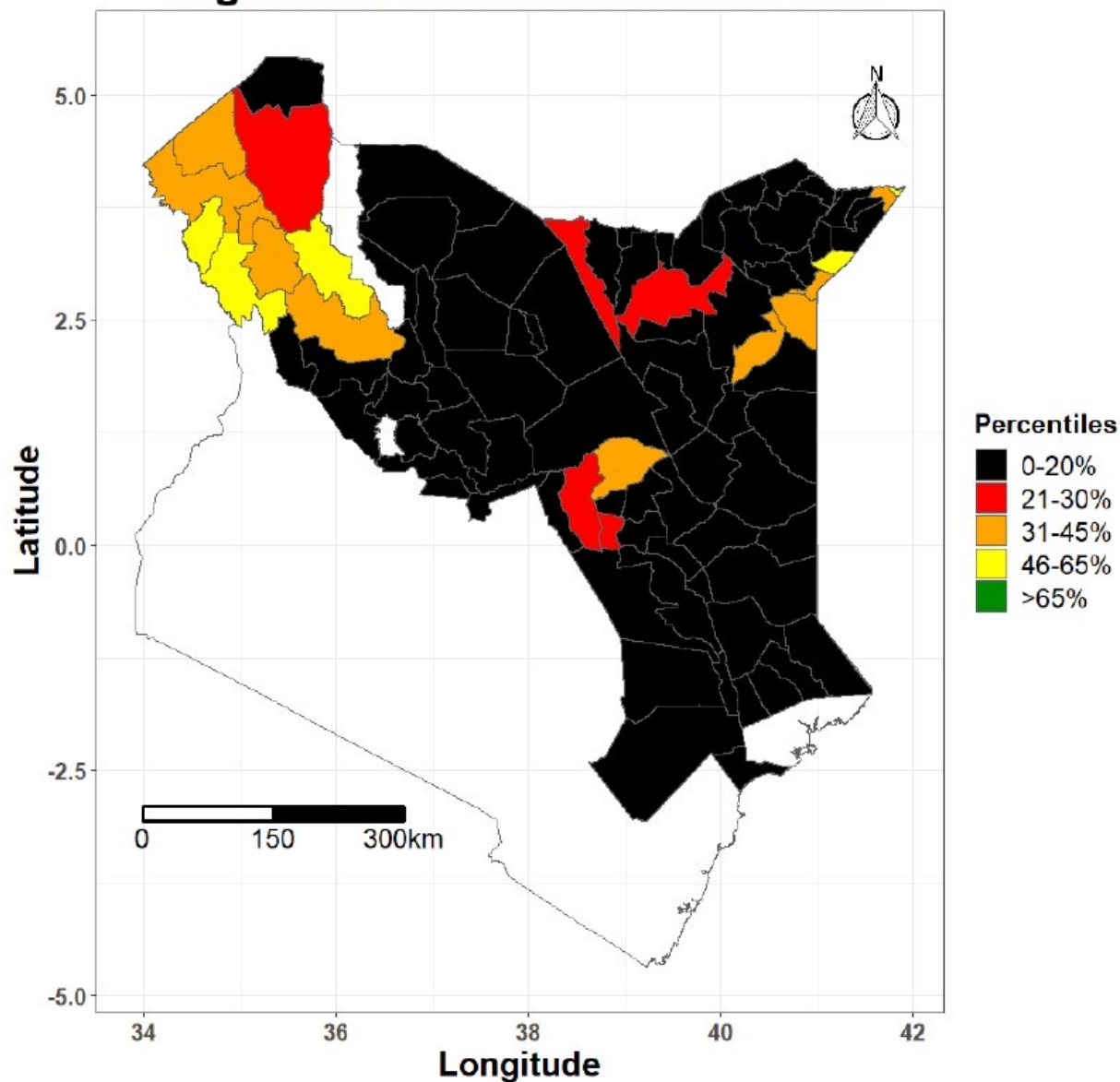


# **KENYAN EXPERIENCE**

- 1. The frequencies of severe droughts have increased from a 5-7-year cycle to 2-3-year cycle**
- 2. 2008 to 2011- Kenyan economy lost an estimated \$7 billion.**
- 3. The livestock sector incurred 72 percent of that loss, or \$5 billion, with 9 percent of all livestock lost.**
- 4. For the last 12 years, the Government of Kenya spent \$ 30 Million per year on post disaster interventions**
- 5. World bank, International livestock research institute and insurance companies have worked with government to offer both crop and livestock insurance**

# KENYA LIVESTOCK INSURANCE PROGRAM

## Vegetation Condition for Jun 2019



# KENYA LIVESTOCK INSURANCE PROGRAM

County	Sum insured	Claims
MARSABIT	174,860,000	29,430,534
Turkana	175,140,000	8,548,330
Isiolo	140,140,000	26,030,690
SAMBURU	127,960,000	28,641,676
SAMBURU	12,110,000	2,676,758
Tana River	175,000,000	77,583,352
WAJIR	175,700,000	41,809,082
MANDERA	139,860,000	35,740,180
GARISSA	140,070,000	48,545,714
Total	1,260,840,000	299,006,316

## **MEASURES TO IMPROVE TAKE UP**

- **Policy and Regulatory Interventions:**
- **Strengthening agriculture insurance markets**
- **Innovative Products**
- **Addressing obstacles to agriculture insurance**
- **Knowledge Management and Community of Practice**
- **Global Engagements and collaboration**
- **Focus on sustainable agriculture**
- **Support from international institutions**

# **REGULATORY SUPPORT**

- i. Building capacity to evaluate insurance options from a technical and operational perspective and drive industry strategy**
- ii. Coordinating the operational steps required for program implementation,**
- iii. Training program stakeholders on insurance issues**
- iv. Supporting the drafting of documents required for program implementation**
- v. Designing a suitable monitoring and evaluation framework.**



# GOVERNMENT SUPPORT

- i. Create a center of expertise able to support the development and scaling up of agricultural insurance.**
- ii. Establish a core team of agricultural insurance experts to provide technical support to agricultural insurers in underwriting, product development, pricing, product delivery, loss adjustment, catastrophe risk financing, and so forth.**
- iii. Create and manage a centralized database of agricultural and weather statistics, and make the database available to agricultural insurance practitioners.**
- iv. Promote the exchange of expertise among insurance companies and access to international best practice through training courses, operations manuals, and other means**

# **OPPORTUNITIES IN AGRICULTURE INSURANCE**

- **An estimated 17 percent of total global food production is wasted (11 percent in households, 5 percent in the food service and 2 percent in retail)- Opportunity in transportation and storage of products**
- **While agriculture insurance has mainly covered farmers against losses, there is need to develop products that will cover the consumers against increased prices due to shortage in production**
- **Development of agriculture to support recovery and protection of biodiversity loss**



# **UNEP F.I PRINCIPLES FOR SUSTAINABLE INSURANCE**

**Principle 1 - We will embed in our decision-making environmental, social and governance issues relevant to our insurance business.**

**Principle 2 - We will work together with our clients and business partners to raise awareness of environmental, social and governance issues, manage risk and develop solutions.**

**Principle 3 - We will work together with governments, regulators and other key stakeholders to promote widespread action across society on environmental, social and governance issues.**

**Principle 4 - We will demonstrate accountability and transparency in regularly disclosing publicly our progress in implementing the Principles.**

**150**  
*Signatories*

**104**  
*Supporting Insti  
tutions*

**33%**  
*of global  
premiums*

**USD \$ 15 trn**  
*of total assets*

