



# **KOPIA-Mongolian Agricultural Technology Cooperation**

**KOPIA Mongolia Center**

**Director Oh Myung-kyu**

# Content

- 1 AGRICULTURAL STATUS AND POLICY OF MONGOLIA**
- 2 PROJECT IMPLEMENTATION TO DATE**
- 3 MONGOLIAN AGRICULTURAL CHALLENGES AND GOALS**
- 4 DETAILED IMPLEMENTATION OF THE PROJECT IN 2023**
- 5 EXPECTED OUTCOMES AFTER ACHIEVING GOALS**



## General Overview

- Ranked 15th in the world for land area and 1st for per capita area.
- Cultivated land area: approximately 1.2 million ha (400,000 ha for wheat, 2.6 for fodder, 1.5 for potatoes, 0.8 for vegetables, and 0.8 for annual crops)
  - ✓ Less than 1% of total land area is utilized for cultivation, 98% of livestock are natural grazing
- 85% of the economy is based on agriculture, with 31.2% of GDP in agriculture.
- Annual rainfall is about 350 mm (South Korea 1,245 mm) \* 55th in water scarcity

## Agriculture Policy

- **Setting the 3 Sustainable Development Goals for 2030:** Adopting advanced agricultural technologies such as improving soil fertility
- **"National Policy on Food and Agriculture":** Reducing fallow by expanding crop rotation, etc.
- **Establishment of the Food Safety Department in the Office of the President :** Agriculture growth target of 20% by 2025
- **Proactive agricultural policy of the Mongolian government:** Increasing wheat and vegetable cultivation area about 400,000ha → 1,000,000 ha

➤ **SDGs 1(End poverty in all its forms everywhere):**

Vegetable (onion & tomato) cultivation technologies, Increase Livestock Productivity

➤ **SDGs 2(Food Security):**

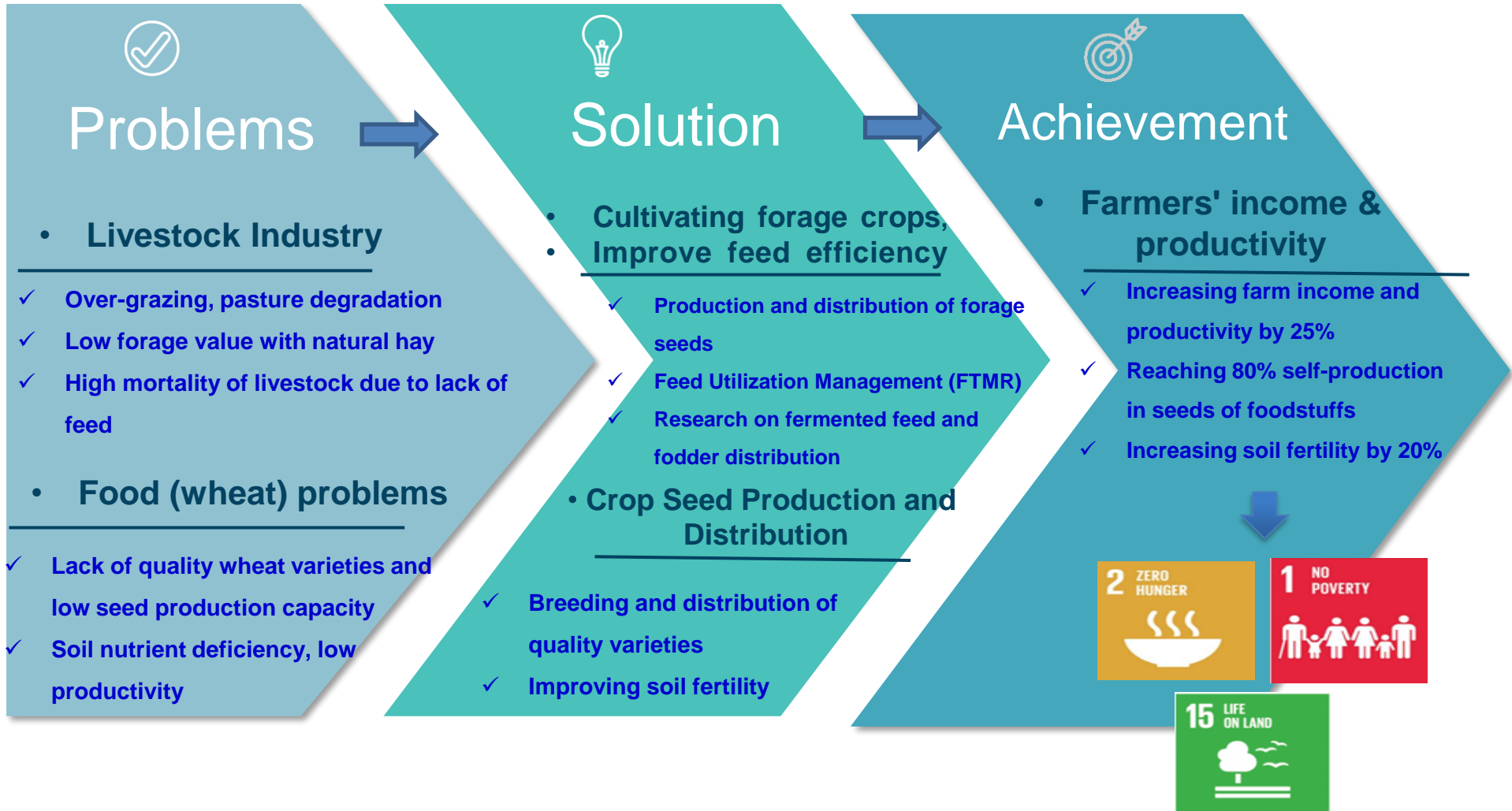
Wheat, forage crop productivity improvement, Livestock specification technology, etc.

✓ **Farm Demonstration, Pilot Farm, Dissemination through technical training**



✧ **Projects timeline in short**

- ✓ (2014 ~ 2016) Developing wheat seeds, increasing forage crop productivity, etc.,
- ✓ (2017 ~ 2019) Vegetable cultivation technology, improving beef cattle productivity, etc.
- ✓ (2019 ~ 2022) Expanding the distribution of perennial forage crops, high quality seed of wheat.





## Pilot farm village project implementing FTMR technology adaptable to Mongolia



Livestock mortality is 3.5 million per year, meat productivity is low at about 48%.

\* Korean cattle(Hanwoo) 411kg, Mongolian cattle 130kg

# >> Pilot farm village project implementing FTMR technology adaptable to Mongolia

## < 2023 Outcomes >

- ❖ **Feed crop seed:** 60 tons each of barley and oat seed (for distribution), 80 tons of barley, oats, and 300kg of corn (for production)
- ❖ **Cultivating and producing fodder:** 400 ha each of barley and oats, total 800 tons of fodder
- ❖ **Establishment of FTMR feed base:** selection of 3 fermentation microorganisms, diversification of FTMR and dissemination to farmers (16 tons)

## < Plan for 2024 >

- ❖ **Hay Production : 3,600tn (45 tons per farmer)** ⇒ **Livestock mortality by 20-30% ↓**
  - ❖ **Distribution of FTMR feed : 160tn (2 tons per farmers)** ⇒ **Meat production by 30% ↑**
- } **Farmers Income 25% ↑**

## < Strategy >

- ❖ **Technical approach:** grazing specifications + intensive livestock
  - ✓ **March-November (traditional technology, natural grazing) + December-February (hay, FTMR)**
  - ✘ **Cultivation of fodder crops: May: sowing ~ September: haymaking, August silage making, etc.**
- ❖ **Policy approach:** (MOFA) Expansion of fermented feed, (MEDS) Dissemination of fodder seed research and development
  - ✓ **Supporting fermented feed (small and medium-sized) factories, enacting utilization laws, and establishing a feed seed production distribution system**

# 4 DETAILED IMPLEMENTATION OF THE PROJECT IN 2023

## Distribution of quality wheat seed and manure crop utilization to improve wheat productivity



Distribution rate of quality seed of **wheat varieties in Mongolia is less than 3%**("prior to 2014"), with **low soil organic content**





## Distribution of quality wheat seed and manure crop utilization to improve wheat productivity

### < Outcomes by 2023 >

- ❖ Development of wheat varieties suitable for Mongolia: Darkhan-144 , total 6 varieties
  - \* Drought-resistant, high quality and high yield (about 18% increase)
- ❖ Seed production and distribution of high quality wheat varieties (2018-2022): 600 tons of standard seeds and 6,000 tons of certified seeds
  - ※ Achieved about 18% of Mongolia's self seed distribution in wheat cultivation sector

### < Plan for 2023 to 2025 >

- ❖ Distribution of quality wheat varieties: SD seed 1,050 tons, Cer. Seed 14,000 tons
  - ❖ Green Manure Cultivation Technologies: Green Manure, fermentation
- ⇒ Wheat Productivity Increased by 25
- } 80% of Wheat seed self-production Ratio

### <Strategy>

- ❖ **Technical approach:** Developing 3 of quality superior varieties, expand distribution of certified seed
  - ✓ Developing new varieties(IPAS), local demonstration test, producing certified seed at seed companies
  - ※ Inviting genetic resources and experts from Korea Rural Development Agency (RDA)
- ❖ **Policy approach:** Establishment of "National Seed and Variety Service", government participation in selection and dissemination of the quality seed
  - ※ The South Korean government produces and distributes seeds of 5 main crops including rice, barley, wheat, etc

## 1. Improve livestock meat productivity and increase in exports to lay the foundation for a leap forward as a livestock powerhouse

- Meat exports in the last 5 years \$40,385,000 → More than 30% expected increase
  - \* Meat production improves by 30%, livestock mortality decreases by 20-30%
- Other Livestock Products Exports: Meat Processed Products, Cashmere Productivity Improvement Expected to Increase Export Volume

## 2. Potential to reach beyond wheat self-sufficiency and become a food exporter country

- wheat cultivation area : 400,000 ha → 1 million ha \*
  - \* Mongolian government's food and agro-livestock policy
- Wheat production : 410,000 tons → 510,000 tons, 25% increase
  - ⊗ Projected wheat production in 15 years: 1.28 million tons
    - \* Self-consumption of about 400,000 tons and export of about 880,000 tons

From a country that  
received aid in the past,  
**South Korea**

**A SMALL REPAYMENT,  
A SEED OF CHANGE**

**Thank You**

**We love to share what we have !**

