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Saudi efforts to foster sustainable and resilient agri-food systems

By

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Saudi Efforts to Foster Sustainable and Resilient Agri-Food Systems

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Saudi Arabia is well known as a net food importing country; however, the country sustain self-sufficiency in some food products, and even produce surplus in some food products.



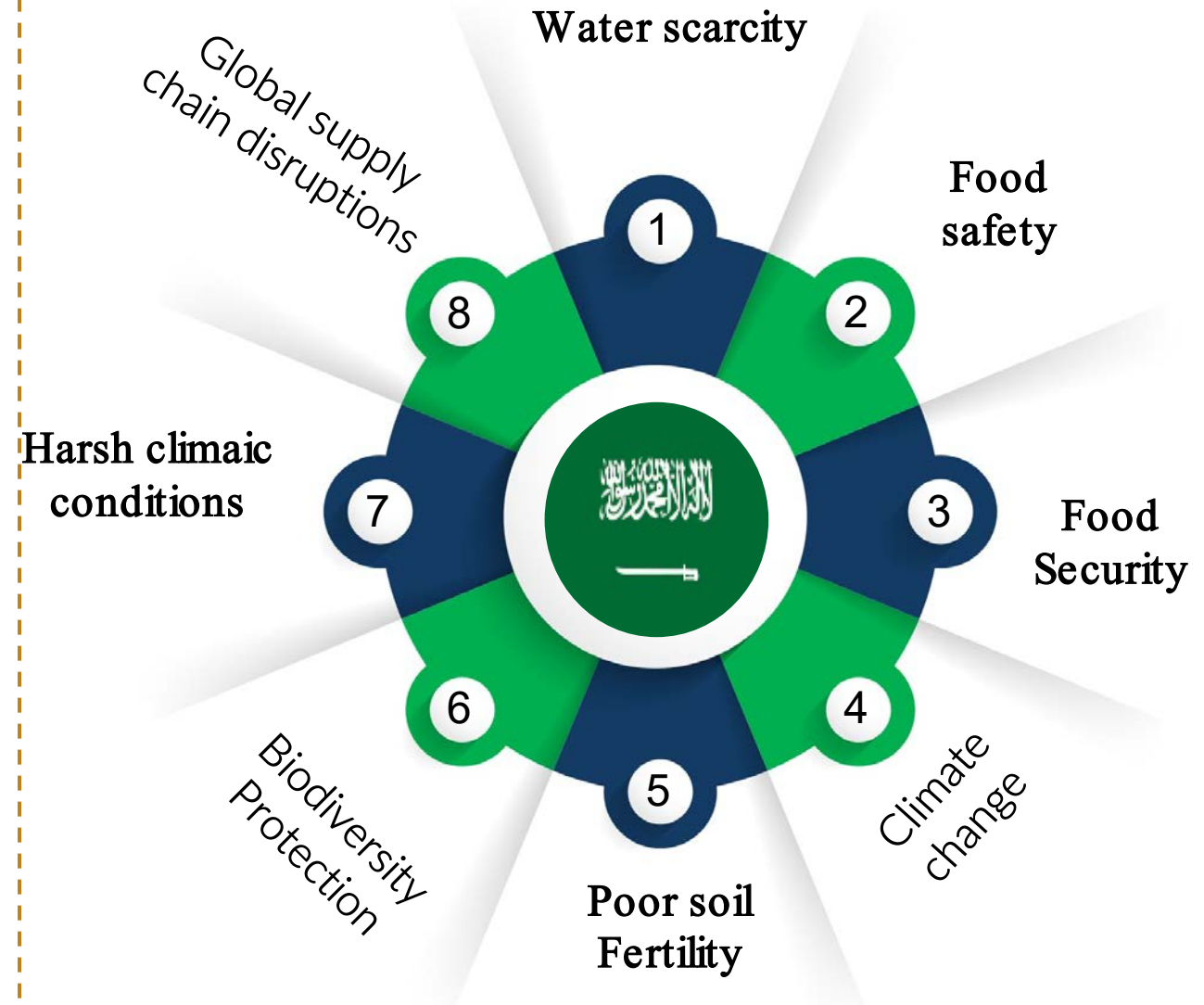
Agriculture sector provide approximately 30% of the total food available for consumption, and contribute 72.25 billion SR to the GDP in 2021, which is 3.6 % of non-Oil GDP.



Total workers involved in Agriculture sector are ~900,000



- Total Agricultural Holdings 660,000



Different Pillars for Resilience



- A sustainable agriculture sector that contributes to the Kingdom's food security for economic, environmental and social sustainability to achieve strategic objectives of Saudi Vision 2030

1. Increasing domestic production

2. Circular Agriculture for Sustainability

3. Diversifying food import

4. Responsible Investment in Agriculture and Food Systems



Agriculture sub-sectors: Kingdom of Saudi Arabia



Staple Crops

Wheat and rice, source of carbohydrate



Fruits &
Vegetables

High portion of needs especially vegetables are grown locally



Poultry

Chicken, eggs



Meat

Local breeds for genetic improvement



Seafood

KSA consumes 300K tons of seafood annually



Dairy

Advanced production systems

Key takeaways

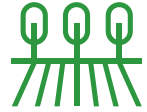
- **GFSI:** Saudi Arabia ranked 41st as per latest Global Food Security Index
- **Affordability:** Ranked 40th
- **Availability:** Ranked 23rd
- **Quality and safety:** Ranked 49th
Needs improvement in safety standard implementation and food waste; current food waste 33.1%
- **Sustainability and Adaptation:** Low ranking (567th) due to arid and water stressed environment

1. Increasing domestic production: Agriculture sector Measures



صندوق التنمية الزراعية
Agricultural Development Fund

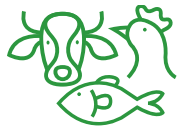
Agricultural Development Fund



Irrigation systems in the Kingdom of Saudi Arabia



Improve Yield and Quality of Crops



Increasing Production of Animal-based Products

- Kingdom of Saudi Arabia has aligned the Agricultural Development Fund's strategy with investment in the agricultural sector
- Increased lending by 400% over the past four years and we will continue to support the agricultural sector to contribute to the sustainability of our food systems.



- Promoting efficient irrigation systems for fruits production (>70% drip irrigation)
- Vegetables production by drip irrigation ~ 49 %, and sprinkler ~ 36%.
- Cereals production by sprinkler ~ 47%, drip irrigation by ~ 10%.



- Increasing existing crop yield for key crops by ~ 30 - 40% (on average) through increased adoption of modern practices and usage of new seed varieties / cultivars.
- Developing stress tolerant improved crop varieties
- Extension / training services to develop farmer know-how and enable uptake of modern tech



- Efficient border control and quarantine biosecurity
- Veterinary diagnostic and health services
- Integrated animal resources data management and monitoring tools
- Enhancing R&D and innovation capabilities
- Institutional setup enhancement and public sector coordination
- Active partnerships with regional and global entities



1. Increasing domestic production: Agriculture sector Measures



Precision Agriculture

- Ministry seeks to localize smart technologies by issuing a set of legislations to organize them and provide all technical, financial and logistical support
- Promoting Climate Smart Agriculture
- Monitoring and Forecasting by Remote sensing
- Smart Irrigation to enhance water use efficiency
- Vertical farming



Food Safety

- Encouraging and promoting organic production
- 130% increase in organic production since 2018 to last year.
- 46 % increase in organic production area since 2018 to last year
- Saudi G.A.P was launched on 1st of January 2020 for Food safety, Animal safety, Environment protection, Workers health & safety



Digitalization

- launched a unified electronic services portal NAAMA in Saudi Arabia for individual and business sector dealing with food and agriculture
- It provides beneficiaries with all electronic services in the various sectors of the ministry including environment, water, agriculture, livestock, land, and fisheries
- The NAAMA platform is providing altogether more than 260 electronic services covering different aspects
- Electronic Extension Platform for Supporting the small farmers by advising and providing free of cost pest control services



Sustainable Agricultural Rural Development

- Small producers represent 80 % of the total number of agricultural holdings, & they occupied only 6% of the total area of holdings in KSA
- Strengthening the capacities of small-hold family farmers to enable them to access productive resources, services and markets in collaboration with FAO
- Diversifying the productive base, food security
- Providing jobs, Social stability and settlement
- Preserving environment and natural resources



2. Circular Agriculture for Sustainability



Circular agriculture focuses on

- Using minimal amounts of external inputs,
- Closing nutrients loops,
- Regenerating soils,
- Minimizing the impact on the environment



Circular agricultural practices

- Mixed farming
- Organic agriculture



Water recycling and wastewater use

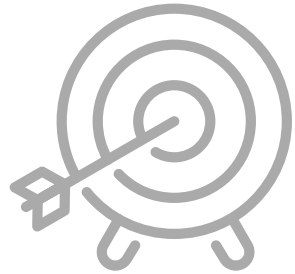


Policies

- Invest in technologies and research for circular agriculture
- Strengthen institutions and incentives to foster circular agriculture
- Enhance international cooperation to accelerate efforts to reduce food loss and waste



3. Diversifying food import



Food

- Diversify the import products by type to increase the number of trading partners, and reduce import price variability
- Food safety governance for ensuring safety, quality, and authenticity of imported food and their compliance to local standards (HALAL)



Intermediate goods/Inputs

- Diversifying import sources of agricultural inputs such as Seeds, and Plant protection products to ensure quality products, availability & stabilize prices
- Fertilizers



Partnerships

- Developing strategic partnerships for better food diversification with countries to address local food deficiencies
- Closely working with International institutions (FAO, WB, IFAD, IsDB etc.,)



Trade and industrial policies

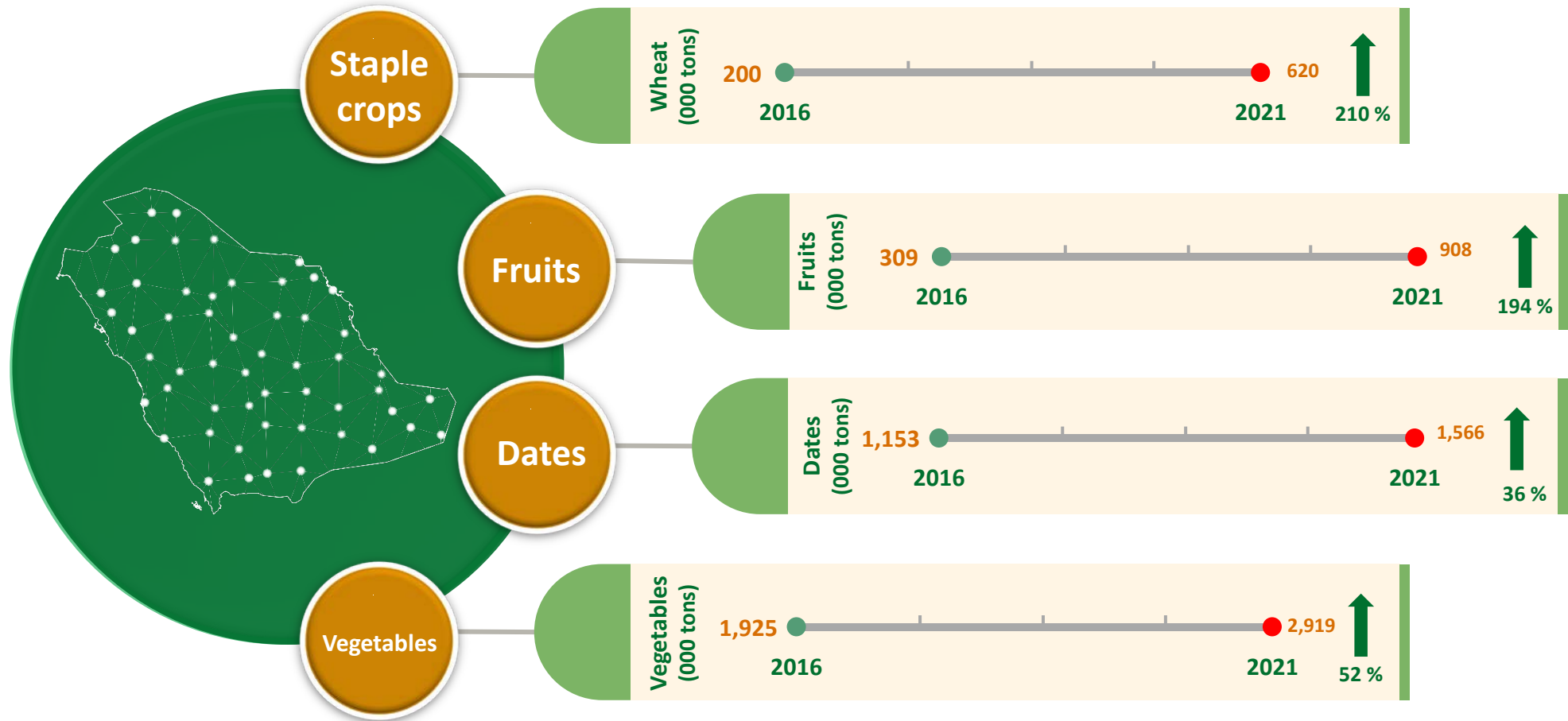
- Policy reforms for joint actions for Regional integration
- Reshaping supply chain by focusing on long supply chains to regional chains

Responsible Investment in Agriculture and Food Systems

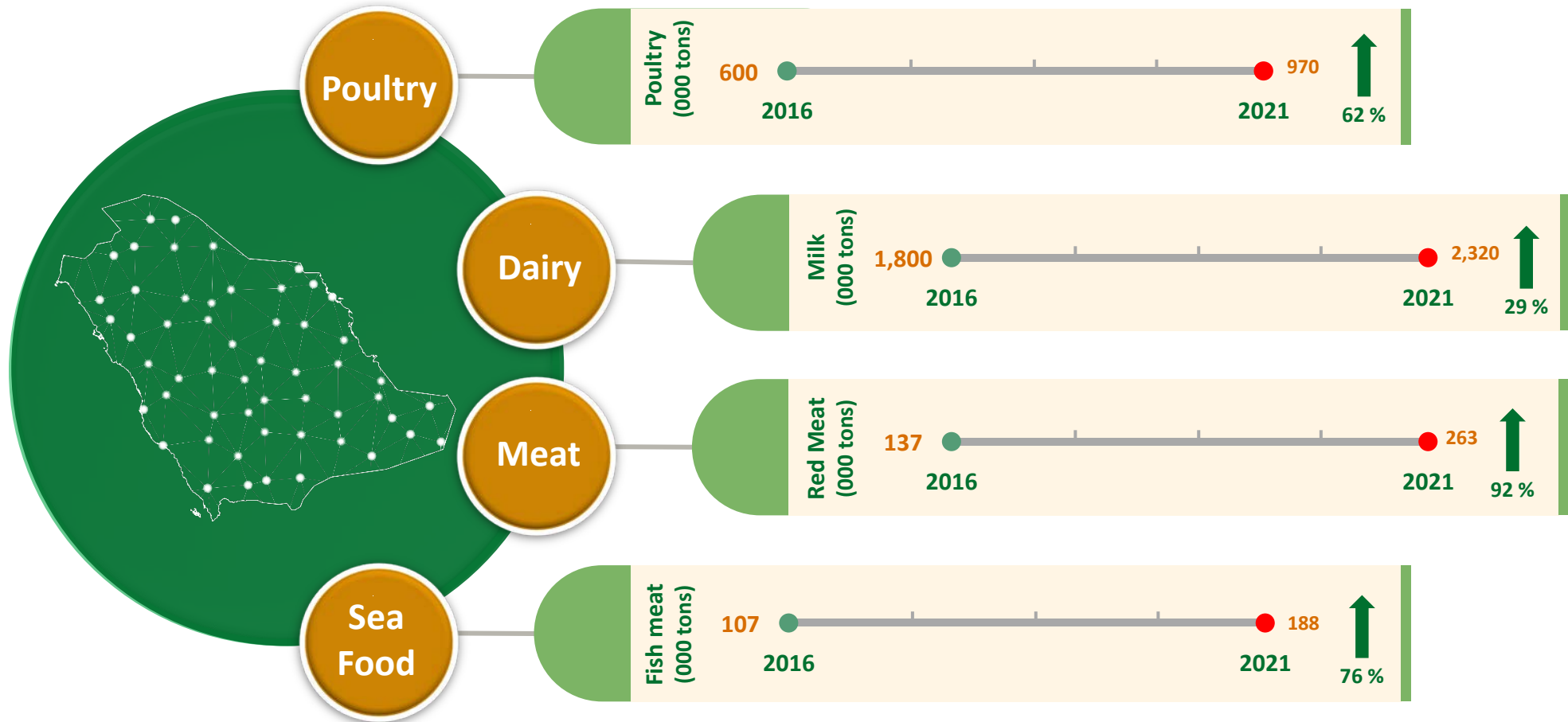


- Fill the investment gap in agriculture for inclusive economic development
- Creating decent job for all agricultural and food workers in the host country
- Eradicating poverty
- Achieving sustainable development, protecting food security and nutrition of both countries, and contribution to SDGs
- Advancement in the host agriculture system by investment on innovative technologies to increase the efficiency and production

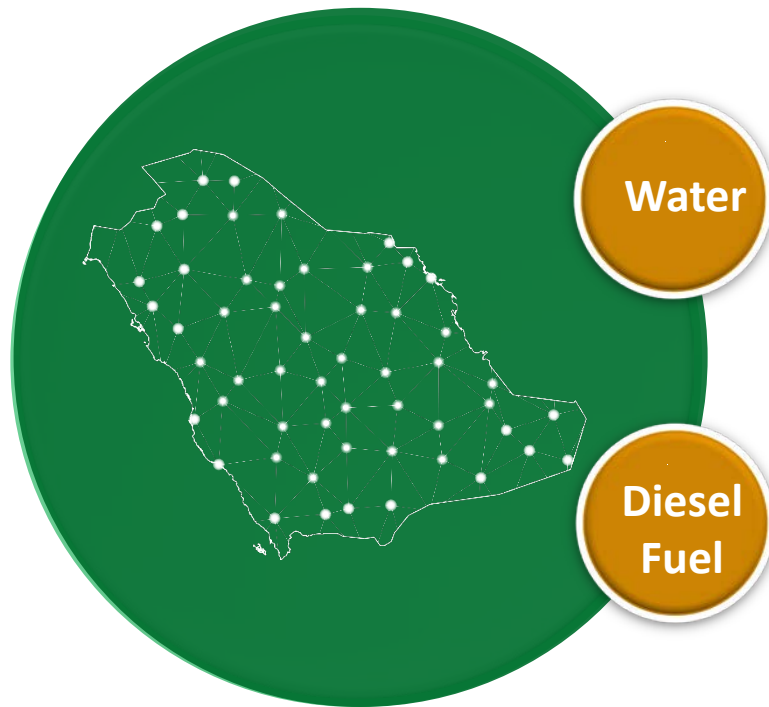
Local Status & Production targets



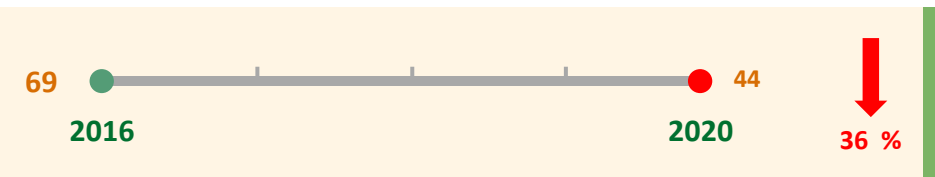
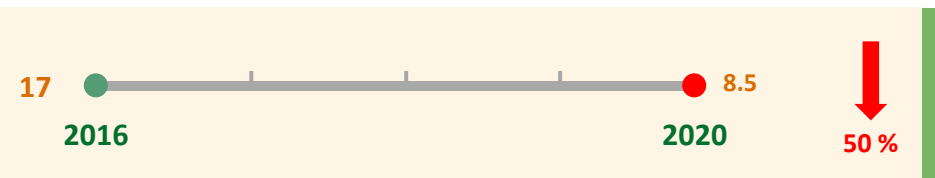
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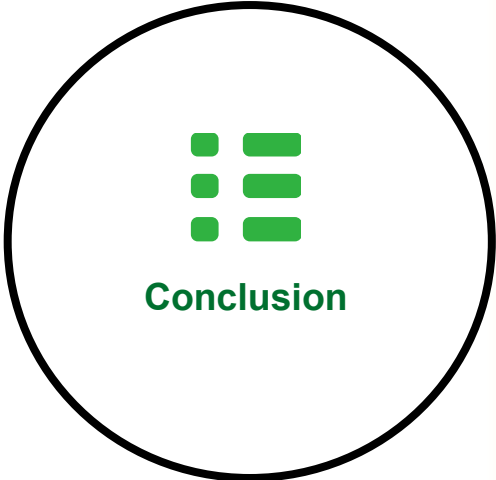


Agriculture Usage of Non-Renewable Ground Water (NRGW) Billion Cubic Meters (BCM)



Agriculture Usage of Diesel Fuel ('000 Barrels per Day)

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Conclusion



Boosting local productivity, through innovative technologies such as vertical farming and precision agriculture, etc.



Building a circular food economy that targets efforts on reducing, reusing and recycling across the entire value chain including Production, post-harvest handling, packaging, distribution, & consumption.



Develop the Foods of the Future sector (cultured meat, insect proteins, algae, alternative proteins).



Building strategies for sustainable food systems through early warning systems to address Crises at local and regional level



Enhancing investment opportunities and build Environmental Partnerships at local, regional and global level



THANK YOU