



التحالف السعودي لتقنيات الزراعة والغذاء
Saudi AgriFood Tech Alliance



وزارة البيئة والمياه والزراعة
Ministry of Environment, Water & Agriculture

MEMBERS MEETING

Quarterly Meeting

www.safta.sa

AGENDA

- ✓ **Abdullah Alraddidi**- Welcome *(15 mins)*
- ✓ **Mark Hull** - Intro to Working Groups *(15 mins)*
- ✓ **Woody Ang** - Working group – Gene-edited Crops *(20mins)*
- ✓ **Dr Motaz Alsolaim** - Working group – Red Palm Weevil *(20mins)*
- ✓ **Mark Hull** - Working group - Cold Chain *(20mins)*
- ✓ **Layla Ali** - Gulf Research Center – COP16 activity *(20mins)*
- ✓ **Sarah Alkhamash** - Agricultural Development Fund *(20mins)*
- ✓ **Mark Hull** – Future activities and AOB *(30mins)*
- ✓ **Any Other Business** *(20mins)*

Welcome,
Abdullah Alraddidi,

MEWA



Intro to Working Groups,

Mark Hull,

SAFTA Secretariat



OVERVIEW OF THE SAUDI AGRIFOOD TECH ALLIANCE

Mission

The Saudi AgriFood Tech Alliance seeks to **unite and mobilize** a complementary network of food & agriculture stakeholders by strengthening coordination and collaboration amongst members to **catalyze the national-scale deployment of AgriFood technologies**

Alliance Objectives



Community Building



Ecosystem Partnerships



Inform Policy

Alliance Activities



Dissemination of National & Sectoral Strategies



Activation of Funding, Incentives & Innovation Programs



Showcase of AgriFood Tech Solutions & Pilot Opportunities



Policy Informing via Member-Led Working Groups



Alliance Knowledge Base

INTRODUCTION OF THE WORKING GROUPS

Purpose

Working Groups play a critical role in advancing the mission of the Alliance by **addressing key challenges, influencing policies, and promoting the adoption of high potential technologies.**

Key Objectives



**Improved Policy
Making &
Regulatory
Frameworks**



**Accelerated
Technology
Deployment &
Adoption**



**Enhanced
Government
Industry
Collaboration**

WORKING GROUPS SCOPE OF WORK



WORKING GROUPS FORMATION



ROLES AND RESPONSIBILITIES

- Facilitate WG formation & management
- Provide administrative and logistical support
- Coordinate communication & collaboration among members
- Engage external stakeholders for technical support as required

- Provide guidance and oversight
- Support with resources and expertise as required



MEMBERSHIP BENEFITS



Shape Regulatory Framework & Influence Policies



Accelerate Technology Adoption & Deployment



Drive Industry Change






Knowledge & Insights Sharing



Collaboration & Networking Opportunities

WE ARE CURRENTLY ESTABLISHING THE FIRST WORKING GROUPS LED BY THE ALLIANCE CO-FOUNDERS

	Topic	Lead	Preliminary Members	Key Objectives
1	Combating Red Palm Weevil	 <p>وزارة البيئة والمياه والزراعة Ministry of Environment Water & Agriculture</p>	<ul style="list-style-type: none"> ▪ WEQAA ▪ NCPD ▪ Research Centers ▪ Topian, NEOM ▪ KAUST 	<ul style="list-style-type: none"> ▪ Define a holistic & comprehensive framework for Red Palm Weevil. ▪ Develop a detailed technology map, incl. value chain elements, for all relevant tech solutions.
2	Unlocking Algae Commercialization	 <p>جامعة الملك عبد الله للعلوم والتقنية King Abdullah University of Science and Technology</p>	<ul style="list-style-type: none"> ▪ KAUST ▪ NFLDP ▪ SFDA ▪ Topian, NEOM ▪ SWA 	<ul style="list-style-type: none"> ▪ Expand the deployment of algae production at scale. ▪ Provide regulatory clarity for investors. ▪ Expand access to developed technology and facilitate tech transfer.
3	Gene-edited Crops Commercialization	 <p>TOPIAN. NEOM</p>	<ul style="list-style-type: none"> ▪ MEWA ▪ SFDA ▪ Buthor Seed Center ▪ Esidamah ▪ Research & Academia 	<ul style="list-style-type: none"> ▪ Establish a clear regulatory procedure and process for gene editing crops to gain regulatory approval for commercial use in KSA.

Gene-edited Crops, Woody Ang,

Topian, Director of Ecosystems



ALLIANCE INITIATIVES



TOPIAN.
NEOM

Topian, the neom food company is actively involved in various initiatives in support of the alliance's ecosystem building

1

Strategic Partnership with Estidamah on the National Research and Development Center for Sustainable Agriculture in developing a Greenhouse Production and Business Management Joint Training Program (*more details on next slide*).

2

Active supporter of the Red Palm Weevil Biotechnology Consortium – currently running trials in parallel independently with AKSens (KAUST) @ a farm in the NEOM Region

3

Initiation and support of gene-editing / new genomic techniques (NGT) in agriculture commercial agriculture to improve yields and consumer benefits – working with alliance on Working Group kick-off

Greenhouse Production and Business Management Joint Training Program



This is a **4-week program** developed collaboratively with *The National Research and Development Center for Sustainable Agriculture (Estidamah)*, *Dutch Greenhouse Delta (DGD)*, and *Horti Synergy*.

Tracks	1 Trainee and Fresh Graduate	2 Train the Trainer	3 Private Sector											
Objective	<ul style="list-style-type: none"> ➤ Equip future managers and growers with the knowledge and skills necessary to effectively produce food in greenhouses. ➤ Practical and hands-on training 	<ul style="list-style-type: none"> ➤ Equip future trainers with the knowledge and skills to effectively deliver greenhouse management training to a diverse audience. ➤ Build a pool of qualified trainers to empower individuals and organizations to establish and maintain successful greenhouse operations 	<ul style="list-style-type: none"> ➤ Exchange knowledge amount expertise toward building a more sustainable agricultural future. ➤ Contributing to the program outcomes by potential internship offering 											
Participant	25 Trainees	10 Trainers	45 Participants											
Schedule	Sunday – Wednesday*	Sunday – Wednesday* <small>(Thursday optional)</small>	Every Thursday <small>(except October 24th)</small>											
Topics	<table border="1"> <tr> <td>Plant Physiology</td> <td>Agricultural Data Analysis</td> </tr> <tr> <td>Greenhouse Business Management</td> <td>Vertical Farming</td> </tr> </table>	Plant Physiology	Agricultural Data Analysis	Greenhouse Business Management	Vertical Farming	<table border="1"> <tr> <td>Value-Chain Development</td> <td>Integrated Pest Management</td> </tr> <tr> <td>Substrate and Irrigation Management</td> <td>Plant Nutrition</td> </tr> </table>	Value-Chain Development	Integrated Pest Management	Substrate and Irrigation Management	Plant Nutrition	<table border="1"> <tr> <td>Value-Chain Development</td> </tr> <tr> <td>Maximizing Crop Yield and Health</td> </tr> <tr> <td>Climate Control Principles for Effective Production</td> </tr> </table>	Value-Chain Development	Maximizing Crop Yield and Health	Climate Control Principles for Effective Production
Plant Physiology	Agricultural Data Analysis													
Greenhouse Business Management	Vertical Farming													
Value-Chain Development	Integrated Pest Management													
Substrate and Irrigation Management	Plant Nutrition													
Value-Chain Development														
Maximizing Crop Yield and Health														
Climate Control Principles for Effective Production														

* A minimum attendance of 80% is required for successful program completion and the subsequent award of a certificate. Absences exceeding 3 days (20%) will result in an incomplete program status, rendering the participant ineligible to receive a certificate

GREENHOUSE PRODUCTION & BUSINESS MANAGEMENT PROGRAM

PROGRAM TIMELINE



Trainee and Trainer Tracks



Offsite days/visits



Private Sector Track

WEEK 1



WEEK 2



WEEK 3



WEEK 4



Template for Working Group Leads

Title: Commercial Application of Gene-Edited Crops in KSA

Focus Area

- Defining a unique regulatory classification to enable gene-edited crops to be deployed for commercial growing in KSA to support more resilient agriculture production.

Background/ Rational

To position KSA as a regional champion of adopting biotechnology in agriculture applications as part of KSA's National Biotechnology Strategy, and also contribute to a more robust in-country production ecosystem for national food security.

Lead

Topian, the NEOM Food Company

MEWA
SFDA

Proposed Participants

Buthor (National Seed Center)
Estidamah

Biodiversity Council Representatives
Key KSA Research and Academic Universities

Key Objectives

- To establish a clear regulatory procedure and process for gene-edited crops to gain regulatory approval for commercial use in KSA.

Activities

- Identify clear scientific classification for acceptable biotechnology techniques to be recognized in KSA
- Identify clear classifications separated from broad GMO classifications.
- Identify a process for approvals that could be trialed using KSA's existing research and commercial ecosystem.
- Identify potential champions that could pioneer trials for approval.

Expected Outcomes

- A scientific recommendation for acceptable biotechnology techniques based on the latest scientific developments.
- A scientific classification of gene-edited crops that distinctively differentiates from GMOs and LMOs that can be regulated.
- Lab trials as a communication and awareness activity for regulatory considerations

Support from Secretariat

Logistical Assistance:

Facilitate coordination of meetings, workshops

Regulatory Insights & Updates:

Access to any insights into ongoing trials or tests being conducted around the world.
Updates on regulatory progress being made by other developed nations in permitting gene-editing as part of proactive measures that KSA could learn from.

Partnerships and Collaborations:

Assist in forming strategic partnerships with national and international stakeholders.

Cold Chain, Mark Hull,

SAFTA, Secretariat





Saudi AgriFood Tech Alliance Working Groups

Post-Harvest Traceability and Cold-Chain
quality of Seafood Products

October 2024



Template for Working Group Leads

Title: Cold-Chain and Traceability of Seafood Products

Focus Area		Background/ Rational	
To establish a dedicated Working Group within the Saudi AgriFood Alliance focused on enhancing the post-harvest and traceability and cold-chain of seafood products in Saudi Arabia. This initiative aims to improve food safety, quality, shelf life, reduce waste, and increase consumer confidence in seafood sourcing.		Saudi Arabia's seafood sector faces challenges related to maintaining optimal cold-chain conditions and ensuring the traceability of products from ocean to table. Inefficient cold-chain practices can lead to spoilage, impacting quality and safety. Additionally, a lack of traceability hinders accountability and transparency in the supply chain.	
Lead	Proposed Participants		
KAUST	<ul style="list-style-type: none">Seafood Producers and Suppliers: Fisheries Representatives / Aquaculture OperatorsCold-Chain Logistics Providers: Transport Companies / Storage FacilitiesGovernment Representatives: Ministry of Environment, Water, and Agriculture (MEWA) / Food Safety Authority RepresentativesAcademic and Research Institutions: Food Technology Experts / UniversitiesTechnology Providers: Blockchain Experts	<ul style="list-style-type: none">Industry Associations and NGOs: Seafood Industry Associations / Environmental NGOsRetail and Distribution Representatives: Supermarket Chains / Wholesale DistributorsConsumers and Advocacy Groups: Consumer Advocacy GroupsCertification Bodies: Third-Party Certifiers	
Key Objectives		Activities	
<ul style="list-style-type: none">Traceability Framework DevelopmentCold-Chain Assessment.Technology IntegrationTraining and Capacity BuildingStakeholder Engagement		<ul style="list-style-type: none">Cold-Chain Assessment and Analysis: Conduct Site Visits, Benchmarking StudyDevelopment of Traceability Framework: Framework Design Workshops, Pilot ProjectsTechnology Exploration and Integration: Tech Showcase Events, Collaboration with Tech ProvidersBest Practices Sharing and Capacity Building: Training Programs, Resource DevelopmentStakeholder Engagement and Networking: Roundtable Discussions, Industry ConferencesPolicy Advocacy and Development: Policy Briefs, Engagement with PolicymakersMonitoring and Evaluation: Performance Metrics Development, Regular ReportingCommunity Outreach and Awareness: Public Awareness Campaigns, Collaboration with NGOs	
Expected Outcomes		Support from Secretariat	
<ul style="list-style-type: none">Enhanced traceability systems that provide consumers with confidence in seafood sourcing.Improved cold-chain practices leading to reduced spoilage and increased product quality.Policy recommendations that support sustainable seafood practices in Saudi Arabia.		<ul style="list-style-type: none">Networking Facilitation: Stakeholder Connections and Partnership DevelopmentCapacity Building: Training Organization and Development of Educational MaterialsMonitoring and Reporting: Progress Tracking, Compile quarterly reports summarizing achievements, challenges, and recommendations for future activities to be presented to the Steering Committee.Policy Advocacy Support Policy Research and Assist in drafting policy briefs and recommendations based on the findings of the Working Group.Communication and Promote the Working Group's activities and successes through the Alliance's communication channels, including newsletters and social media.	

COP16
activity,
Layla Ali,

Gulf Research Center, Researcher



Agricultural Development Fund (ADF),

Sarah Alkhamash,

Senior Corporate Communication Specialist





The Agricultural Development Fund

adf.gov.sa

Oct 2024



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- ▶ **Funding for Agri Projects in KSA**
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The Agricultural Development Fund (ADF) of the Kingdom of Saudi Arabia at a Glance...



Established in 1963 by Royal Decree number 58.

Mandate is to provide credit solutions to individuals, Cooperatives, and Companies operating in the Saudi Agricultural sector.

The Fund supports the sustainable development of the Kingdom's Agri sector, food security, and resource conservation objectives.



Main Objectives



Finance the agriculture sector



Promote sustainable agricultural rural development



Encourage the use of modern technologies



Improve customers' experience and offer best-in-class services

ADF Snapshot



Employees
1664



Service centers in the Kingdom
64



Capital
SR 25 Billion



Loans Outstanding
SR 14.7 Billion

Loan Portfolio Overview

ADF Approved Loans **SR 65.8 Billion**

Developmental Loans



37.2 billion
(474,979 loans)

Agricultural Investment Abroad (AIA)



1 billion
(3 loans)

Specialised Loans



27.6 billion
(5,723 loans)

Breakdown of Specialised Loans

Greenhouses



3.5 billion
(496 loans)

Aquaculture



1.2 billion
(73 loans)

Poultry



6.7 billion
(1,402 loans)

Others



16.2 billion
(3,752 loans)

Funding for Agri Projects in KSA



The Fund actively provides financing to a number of key verticals in the Agri sector including but no limited to the following



Program 1: Strategic Projects

Eligible for foreign investors

To fund projects that use advance technology within the sector.

Sectors targeted include but are not limited to: Poultry (chicken breeding and egg fertilization projects), Aquaculture (fish hatcheries projects), and seed production from plant tissue.

Project assets are permitted to be used as collateral and are valued at **60%** of capital investment value for collateral coverage requirements.



13 year tenor
(3 grace + 10
repayment)



Up to **75%**
financing ratio



20% - 25%
Upfront
Disbursement

Program 2: Food Security Projects

Eligible for foreign investors

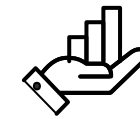
To fund projects that produce value-added products from agricultural/animal inputs.

Sectors targeted include but are not limited to: poultry, aquaculture, air conditioned greenhouses (including hydroponics and aquaponics), other related sectors.

Project assets are permitted to be used as collateral and are valued at **55%** of capital investment value for collateral coverage requirements.



12 year tenor
(2 grace + 10
repayment)



Up to **70%**
financing ratio



20% - 25%
Upfront
Disbursement

Program 3: Supply Chains & Marketing for Agri Products *Eligible for foreign investors*

To purchase equipment to strengthen the supply chains and marketing of agricultural products for example: refrigerators and freezers/ warehouses and stores / means of transportation / marketing centers / slaughterhouses. Project assets are permitted to be used as collateral and are valued at 55% of capital investment value for collateral coverage requirements.



12 year tenor
(2 grace + 10 repayment)




Up to 70%
financing ratio



20% - 25%
Upfront
Disbursement

Program 4: Innovative Projects and Patents *Eligible for foreign investors*

To fund a patent or localized methods that will provide high quality products, or reduce the depletion of resources compared to traditional methods. To obtain funding the initiative should have support from the research and Innovation Agency at MEWA and should be commercially feasible. Maximum lending amount for this program is SAR 10 million. Mortgage of project assets are sufficient to meet collateral requirements.



12 year tenor
(2 grace + 10 repayment)



Up to 80%
financing ratio



30%
Upfront
Disbursement



Funding for Agri Projects Outside KSA

| 02

In 2019, the ADF launched its flagship Agricultural Investment Abroad Program (AIA) to meet the overarching goals of the Nation's Food Security Strategy



The AIA program was established in June 2019 to fund investment in agricultural projects outside KSA with the aim of achieving the nation's food security objectives outlined by Vision 2030

The main objectives of the Program

Securing stable and affordable supplies of scarce commodities through strategic and feasible agricultural investments abroad

Guiding and supporting private sector participation with agricultural investments abroad

Develop ties between Saudi investors and agricultural companies/enterprises in host countries



AIA funds investment in 9 strategic commodities selected by the nation food security strategy, 3 of which are considered of primary importance

Primary Crops



Alfalfa

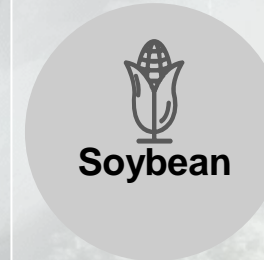


Maize



Wheat

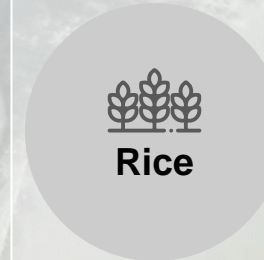
Secondary Crops



Soybean



Barley



Rice



Sugar



Edible Oil



Red Meat

Common Characteristics among all loan products

**Attractive Loan Pricing
Comparing to
Other Financial
Institutions**



**Borrowing
company must
be registered in
KSA and can be
fully foreign
owned**



**Loan must be
covered by
eligible
collaterals (see
below)**



Real Estate



**Project
Assets**



**Bank
Guarantees**



**Investment
Portfolio**



**Corporate
Guarantees**



**Assignmen
t of
Proceeds**

**Collaterals can be accepted in KSA and/or the project host country
and/or other countries**

Thank you



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  920018388
 www.adf.gov.sa



صندوق التنمية الزراعية
Agricultural Development Fund
المملكة العربية السعودية





FUTURE ACTIVITIES

- Saudi Agriculture
- Al Jouf International Agricultural Forum
- SIW Symposium
- Increasing PR and Outreach
- New Members
- News and Announcements
- Website
- Members' Online Meetings



ANY OTHER

BUSINESS

THANK YOU!



Mark Hull



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