

# Global Initiatives in Sustainable Agriculture and Food Systems

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Sponsored by:

The OECD Co-operative Research Programme:  
Sustainable Agricultural and Food Systems

# The Science Enabling Environment



Research



Policy

Communications & Engagement

# Building a global network of Science Allies



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**Sustainability in Agriculture & Food Systems**  
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# The Alliance for Science Mission

- **Our Vision:** The Alliance for Science seeks a future where science and innovation is shared and supported to help bring about a world without poverty, where people everywhere can flourish on an ecologically protected and restored planet.
- **Our Mission:** The Alliance for Science conducts advocacy, communications, and research to help promote an enabling environment for science-based solutions to global challenges.



# The Alliance for Science Activities

Legal, Regulatory, and  
Policy



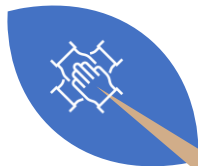
Training



Communications



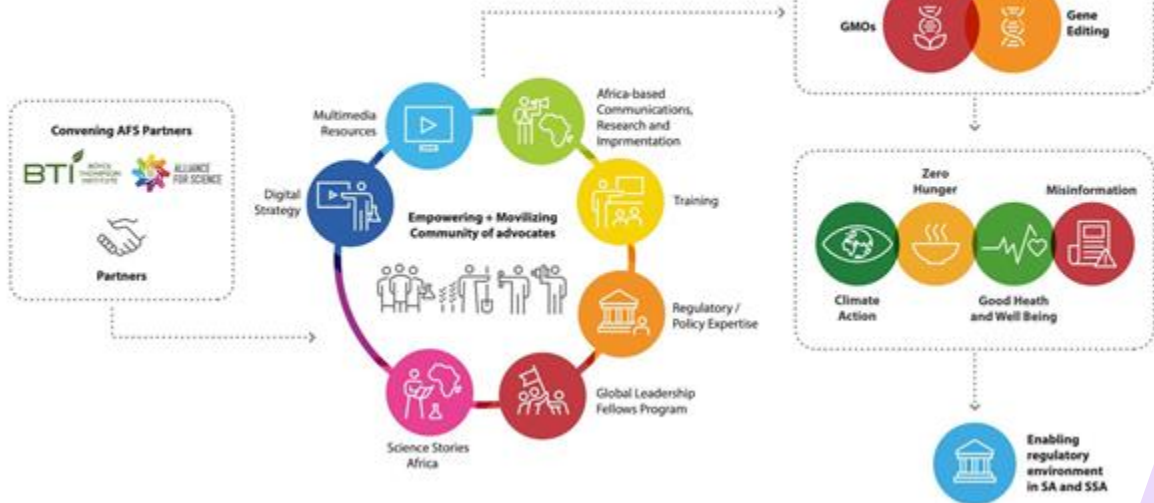
Growing a Global  
Grassroots Network



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A sustained coalition of advocates across SSA is advancing a pro-science enabling environment. The coalition focuses on the agricultural biotechnology enabling environment with narratives that are transferrable to other pro-science contexts.



# NEURAL NETWORK MODEL



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# MOBILIZED COMMUNITY OF GLOBAL FELLOWS



## 2015 Fellows

- Philippines (5)
- Uganda (5)
- USA (4)
- Kenya (3)
- Nigeria (2)
- India (2)
- Bangladesh (1)
- Ghana (1)
- Indonesia (1)
- Tanzania (1)



# Cochran Fellowship: Synthetic Biology and Genetic Sequence Data Regulation and Policy for Colombia



## Knowledge Sharing between the Global North & Global South



## Alliance for Science at CBD COP 15



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# Our Expanded Mandate



Biotech



Food &  
Nutrition  
Security

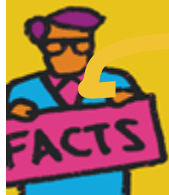


Climate  
Change



Global  
Health

Biotech serves as the  
connector for the five  
elements



Misinformation

# Our Theory of Change

# From Biosphere to Bioeconomy



# BIOSPHERE



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# SOCIETY



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# ECONOMY



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# OUR WORK TARGETS FIVE IMPORTANT SUSTAINABLE DEVELOPMENT GOALS (SDGS)



End poverty in all its forms everywhere



End hunger, achieve food security and improved nutrition and promote sustainable agriculture



Take urgent action to combat climate change and its impacts



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all



Ensure healthy lives and promote well-being for all at all ages



# 10 things everyone should know about GMOs in Africa



1. Biotechnology, genetic modification, genetic engineering and GMOs are terms for essentially the same process. Seedling crops and livestock are from various desirable traits.
2. GMOs can save. Early major work led to the world's largest staple crop, rice. It has also been used to make insulin, vaccines and other medicines. It's also been used to make insulin, vaccines and other medicines. It's also been used to make insulin, vaccines and other medicines.
3. Biotech is Africa's homegrown. Public scientists are working independently to help their own countries by developing genetically modified crops that address local needs specific to local agriculture and meet the needs of their national citizens.
4. GMOs reduce pesticide use. GM crops are bred to resist pests and diseases, such as fall armyworms, groundnuts and banana bractworms, while leaving a resistant variety better suited to get a good yield while reducing their use of pesticides.
5. GMOs are developed in collaboration with farmers, who participate in field trials to test the effectiveness of genetically engineered crops in a farm environment.
6. Each nation retains ownership control over GMOs. They decide which GMOs can be developed, approved and planted in farmers. Many countries have their own regulatory systems, GMOs used to test out of use for their own farm use.
7. Targets for rice farmers (GMO). Rice farmers in the targeted Asian countries have been successful in using GM crops to increase yields and reduce the need for pesticides. Many countries have their own regulatory systems, GMOs used to test out of use for their own farm use.
8. Higher and GM agriculture can address water. Many farmers choose to grow GM crops for different reasons and different purposes.
9. GMOs are natural. Scientists have been engaged in genetic engineering for centuries. Humans genetically bred 27,000 years ago, and we continue to breed and modify.
10. Each country will manage its own GMO use. Production and distribution, safety, food and companies, laws and regulations, or farmers will pay for their own GM, just as they now pay for hybrid varieties. Other crops developed by the public sector will be made free and available to farmers for free or low cost. Some GMO seeds can be effectively saved. Others should be replaced every year. The hybrid, in some cases, is more likely to be saved. Some should be replaced every year. The hybrid, in some cases, is more likely to be saved. Some should be replaced every year.

## LES IMPACTS DE L'ÉLIMINATION DU COTON BT AU BURKINA FASO



Les agriculteurs du Burkina Faso demandent au gouvernement burkinabè de leur permettre d'adopter les variétés de coton BT. En 2010, le Burkina Faso a été le premier pays africain à introduire le coton BT. Les agriculteurs ont augmenté leurs rendements de 15% depuis que le coton BT a été autorisé, ce qui a permis de réduire l'utilisation de pesticides de 50%.



En 2012, le Burkina Faso a été le premier pays africain à introduire le coton BT. Les agriculteurs ont augmenté leurs rendements de 15% depuis que le coton BT a été autorisé, ce qui a permis de réduire l'utilisation de pesticides de 50%.

Les agriculteurs burkinabè ont augmenté leurs rendements de 15% depuis que le coton BT a été autorisé, ce qui a permis de réduire l'utilisation de pesticides de 50%.



YIELD INCREASED 22%



PESTICIDE REDUCED 51%

En 2012, les agriculteurs du Burkina Faso ont augmenté leurs rendements de 22% grâce à l'adoption du coton BT. Les agriculteurs ont également réduit de 51% l'utilisation de pesticides.



Les agriculteurs du Burkina Faso ont augmenté leurs rendements de 15% depuis que le coton BT a été autorisé, ce qui a permis de réduire l'utilisation de pesticides de 50%.

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Centre Panafricain de Biotechnologies Biotechnologiques en Afrique



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REIMAGINE PLANET RIE

# TELA | DROUGHT-TOLERANT, INSECT-RESISTANT MAIZE



WEEKLY EDITORIAL

Now that  
*BT cowpea*  
has been

## Frequently Asked Questions (FAQS)



### What is TELA maize?

TELA maize are genetically modified GM maize hybrids developed by the Maize Efficient Maize for Africa (MEMA), or TELA maize project. The hybrids have Bt genes that provide protection against stem borer and fall armyworm (FAW) and another gene (DroughtGDP2) that helps the maize plant better tolerate drought. These two genes have been integrated into maize hybrids that were traditionally bred for drought tolerance and improved yield. The new transgenic hybrids will be made available to seed companies in Africa through a public seed license from the foreign-based African Agricultural Technology Foundation (AATF).

The genetically modified (GM) and Bt hybrids will be recognized by the brand name "TELA" to communicate to farmers that they are insect protected and drought tolerant GM maize hybrids from the MEMA/TELA project.

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Relief2Resilience

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# TRUTH MATTERS: CHALLENGING MISINFORMATION IN SCIENCE AND TECHNOLOGY

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## Our Pit Stops

FUTURES - RE-IMAGINING  
THE WAY

MAY 2023

Rural Futures - Empowering farmers with scientific innovations to tackle future challenges and maximize their potential for success



## Africa Waste is Wealth Series (AWWS)

TAKA TAKA NI MALI  
JUNE 6 - 9, 2023

Urban Futures - creating opportunities for sustainable growth and environmental resilience



## World Environment Day

NAWE: LAUNCH OF  
KARURA URBAN FOREST  
BOOK IN NAIROBI!

JUNE 6, 2023

Green Spaces - creating spaces for recreation and replenishment in the midst of African cities



## Africa Climate Week (ACW 2023)

HOSTED BY THE  
GOVERNMENT OF KENYA

4 - 8 SEPTEMBER, 2023

Our Planetary Future - Our  
challenges, Our solutions



## Organized in parallel with the African Climate Action Summit (ACAS)

FUTURE TECHNOLOGIES -  
ACTIONS AND INNOVATIONS FOR  
BETTER FUTURES

4 - 6 SEPTEMBER, 2023



## UNGA - United Nations General Assembly

SUMMIT OF THE FUTURE -  
ACTIONS AND INNOVATIONS  
FOR BETTER FUTURES

5 - 11 SEPTEMBER, 2023



## COP28 Conference of Parties

BACK TO THE FUTURE - RENEWED  
ENERGY FOR NEW SOLUTIONS

30 NOVEMBER TO 12 DECEMBER, 2023

# THANKYOU!!

OUR WORK TARGETS FIVE  
IMPORTANT SUSTAINABLE  
DEVELOPMENT GOALS (SDGS)



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