karaAgro AI

Agriculture 2.0 for all

Problem

African farmers lose about 50% of expected crop yield every year — the highest in the world. (Centre for Agriculture and Biosciences International)

Almost 40% of worldwide crops are lost annually to diseases and pests. (Food and Agriculture Organization - FAO)

Food production in sub-Saharan Africa needs to increase by 60% over the next 15 years to feed a growing population. (Foresight Africa)

Solution

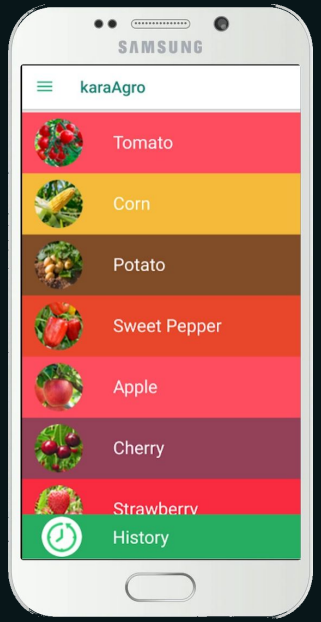
Agriculture 2.0 - Data driven, AI powered Precision Agriculture solutions towards increasing on-farm productivity and crop yield

Collect big data from field

AI detects and predicts problems

AI recommends precise responses/solutions

Products



karaAgro AI disease & pest detection app

karaAgro AI drone platform

karaAgro
Tomato
Corn
Potato
Sweet Pepper
Apple
Cherry
Strawberry
Grape
Peach
History

karaAgro AI
10th July 2020
Play Time lapse
3D Maps
2D Maps
Plant Health
Elevation
Soil Health

Traction: Progress to Date

- Implemented a 4-months high throughput phenotyping project for SARI, covering 1000 varieties of groundnuts
- Contracted by the CRIG to map the spread of diseases within a cocoa field in the Eastern region of Ghana
- We have worked for clients in 3 regions of Ghana: The Greater Accra, Eastern and Northern regions.
- We won Lacuna Fund grant with partners across 4 countries to develop a crop disease and pest dataset

Lacuna Project

Build High Quality Dataset for Automated AI Disease and Pest Detection

140,000 images, 7 crops, ≈20 diseases and pest
Ghana (West Africa), Uganda, Tanzania (East Africa), Namibia (Southern Africa)

Ghana
30,000 images of crop diseases and pests

Team: 40 people, 6 partners, all 16 regions

Maize - Healthy, Maize streak disease, Fall armyworms
Cocoa - Healthy, Swollen shoot virus disease, Anthracnose

Partners

MAKERERE UNIVERSITY

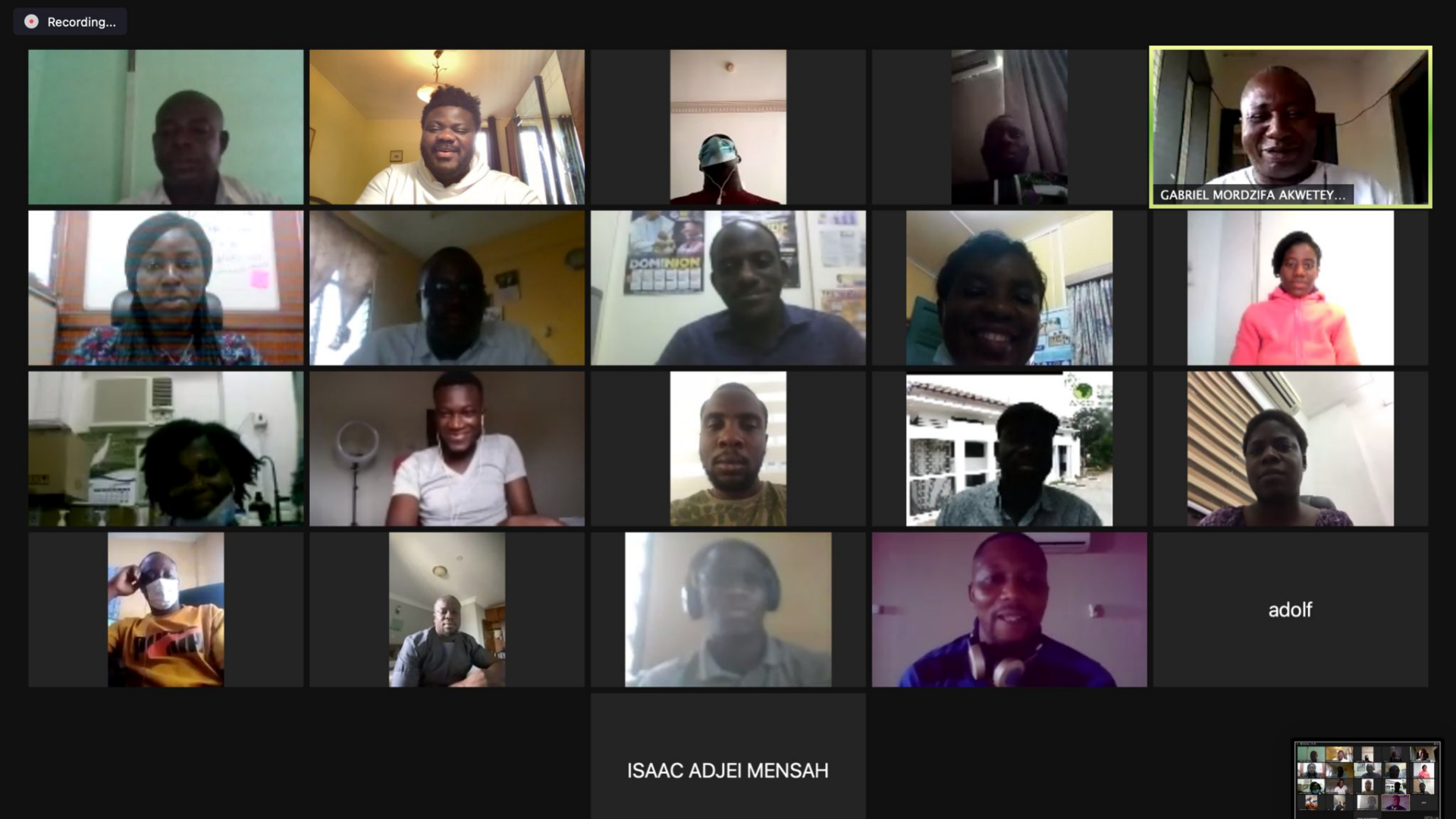
NAMIBIA
UNIVERSITY
OF SCIENCE AND
TECHNOLOGY

Nelson Mandela
African Institute of Science and Technology
NM
AIST
Arusha

UNIVERSITY
OF GHANA

COCOA RESEARCH INSTITUTE OF GHANA (CRIG)
A Division of Ghana Cocoa Board

MINISTRY OF
FOOD & AGRICULTURE
REPUBLIC OF GHANA


Recording...
GABRIEL MORDZIFA AKWETEY...
adolf
ISAAC ADJEI MENSAH

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darlington@gudra-studio.com