

Biocontrol in Africa



Trusted leading supplier
of the highest quality
roses and cut flowers to
the **UK's largest retail
multiples**



One of the world's largest
producers and packers of
Fairtrade roses and lilies

Flowers

Prepares more than **1
million** flower bouquets
weekly

Grows **c246m stems pa**
on own world class farms
for UK, continental
Europe, South Africa and
Japan

Largest added-value producer and supplier of
flowers and fresh produce from Africa to the EU

Sources, processes
c730m stems pa in
Kenya, UK, Germany and
Holland

First supplier of
Fairtrade
vegetables into
the UK



Supplies **c25m kg pa** of premium and
prepared vegetables in the UK and Europe

Fresh Produce

Grows and processes **7m kg
pa** on own farms

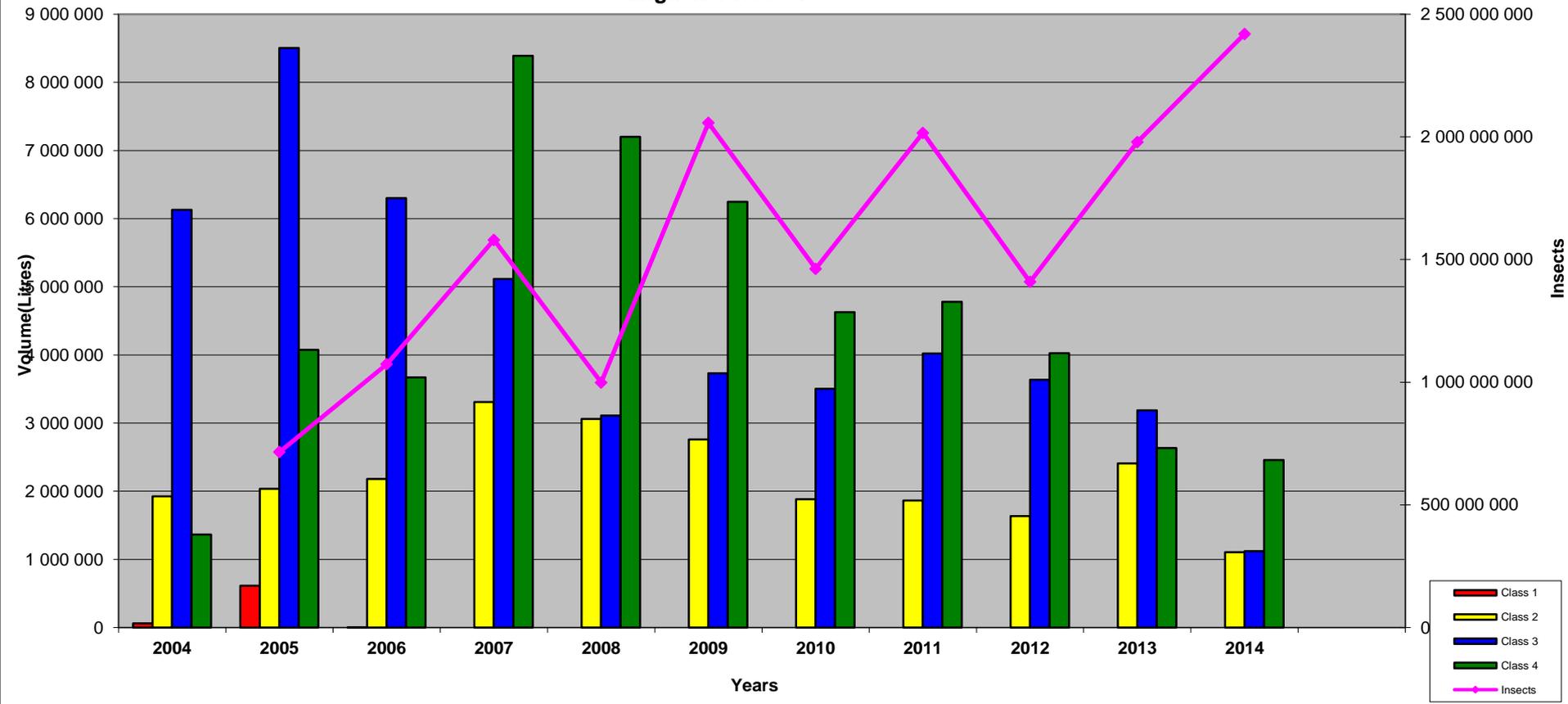


Unrivalled global
network of
**preferred supply
partners** across 17
countries



The success of IPM at Flamingo

Graph Of Spray Volumes And Insects Applied.
Kingfisher Roses.



















Sainsbury's

M&S
EST. 1884

Waitrose

next

JUMBO

TESCO



the
roseportal

coop

REWE

coop

The co-operative



axfood

M
MORRISONS

BAKKAVÖR



A range of complex and differing standards

- GLOBALGAP,
- Retailer Good Agricultural Practice Standards:
- Nurture,
- M&S Field to Fork Select Grower,
- Tesco Food Manufacturing standard,
- Tesco Ornamental Packhouse Standard,
- Waitrose Farm Assessment,
- Sedex methodology
- Ethical Trade Initiative audit,
- British Retail Consortium & Retailer Food Safety and Hygiene audits.
- Fairtrade certification & over 26 others!



Kenya at risk of losing EU market for peas, beans due to falling standards

KENYA - Peas and beans in pods (unshelled) from Kenya will continue to be subjected to strict sanitary and phytosanitary controls before entering the European market, following a rise in cases of contaminated produce last year.

New EU maximum residue levels hit Kenyan vegetable exports 28 April 2013

According to regional press articles, “more than a fifth of Kenya’s vegetable exports to the European market were rejected in January after they were found to contain traces of a banned chemical”, dimethoate, “said to cause cancer”. Stephen Mbithi, CEO of the Fresh Produce Exporters Association of Kenya (FPEAK), pointed out that the increased interceptions followed a 90% reduction in the permitted level of residues: the EU changed its regulations in 2012, stipulating that dimethoate residues “should not exceed 0.02 parts per million”. Dr Mbithi added that “several companies and farmers were de-listed” as a result of the interceptions.

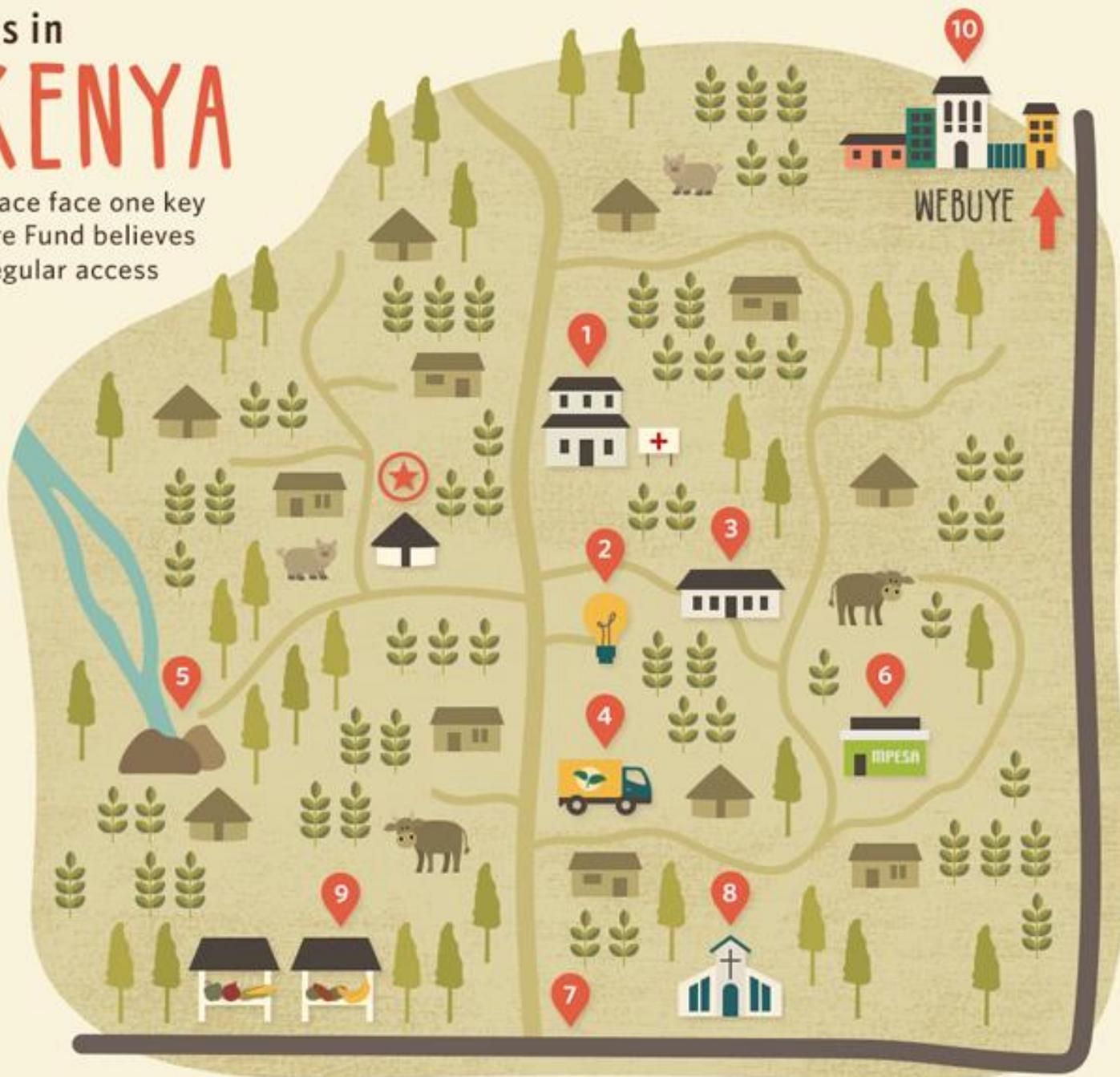


Challenges of Access in RURAL KENYA

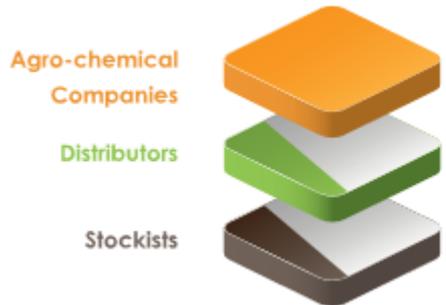
Smallholder farmers like Grace face one key challenge—access. One Acre Fund believes every farmer should have regular access to life-changing products.

★ Grace's Farm

- 1 Hospital: 10 min. walk
- 2 Electricity: 10 min. walk
- 3 School: 20 min. walk
- 4 One Acre Fund Distribution Site 30 min. walk
- 5 River: 30 min. walk
- 6 Mpesa Shop: 40 min. walk
- 7 Paved Road: 50 min. walk
- 8 Church: 1 hr. walk
- 9 Market: 1 hr. walk
- 10 Webuye: 1.5 hr. drive
Nearest town Grace could purchase inputs before joining One Acre Fund.



The Kenya perspective



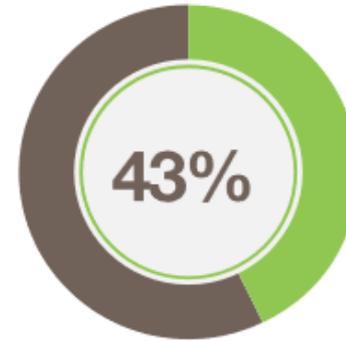
75 agrochemical manufacturers and over 7,000 agrodealers in Kenya



Agriculture's contribution to Kenya's GDP



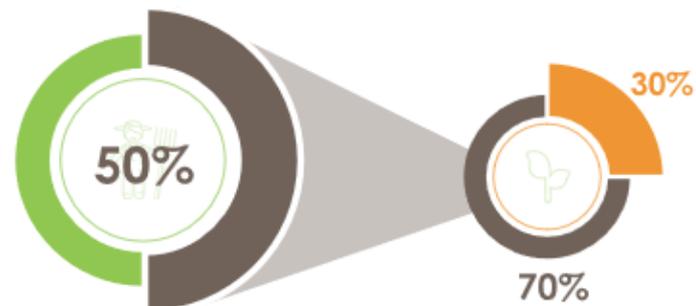
Kenya's population employed in agriculture



Kenya's population who are food insecure



Kenya's agriculture is predominantly smallholder farmers accounting to **3.5million.**



Only **50%** of smallholder farmers participate in commercial farming: **70%** use fertilizer and **30%** use certified seeds.

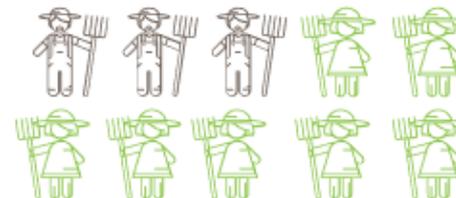


Farm productivity per Ha in Kenya is lower than global average. Maize production for instance is

1.6 MT/ha



The global average is **6 MT/ha**



The World Bank estimates that women make up **70%** of Kenya's farmers.

[Source: Gender in Agriculture Sourcebook, World Bank, page 16, Figure 1.4.]

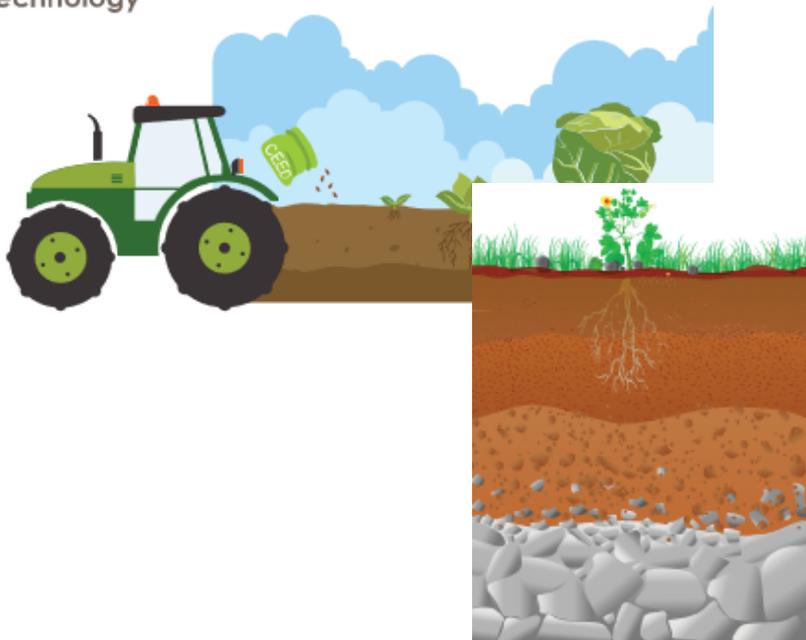


Inputs access and use

- Farmers lack information about right type of farm inputs, right application and right time of use.
- Poor rural roads and other key physical infrastructure have led to high transportation costs for agricultural inputs and services.
- Low agro-dealer investment in the rural areas.

Extension services & technology

- Limited access to extension services hindering faster adaptation of new farm practices
- Inadequate research and farmer linkages reducing access to new farming technologies.



Soil degradation

- Insufficient information on soil preservation practices causing land overuse and soil degradation
- Insufficient access to soil testing services to determine the soil nutrition, pests and diseases.



Climate change

- Changing and unpredictable weather patterns greatly affecting rain-fed agriculture.
- Varying climatic conditions causing an increase in pests and diseases
- Lack of information on farm-level technologies to address climate change challenges

Key Sector Challenges

QUALITY INPUTS

Over **2.45 million** farmers will be using quality inputs in **10 years**. Over 3 million farmers will have improved access to inputs, usage & performance.



AGRO DEALERS

30% of trained agro dealers adopt improved business & customer management practices. Impact over **2,000 agro dealers** in the next **5 years**.



SYSTEMIC CHANGE INDICATORS

LARGE COMPANIES AND SERVICE PROVIDERS

Large companies investing in improved distribution and farmer support. Service Providers make own investments to commercialize their services.



MAIZE YIELDS

Over **2 million** farmers increase their maize yields from **1.6mt/ha** to **3mt/ha**



INNOVATIONS

35 large scale market actors adapt new ways of training and dissemination of information across the supply chain.





VARIETY: N17600-02
COMPANY: AGRISEED
PLANTING DATE: 26 March 2014
SPACING: 90cm x 25cm
FERTILIZER RATE: 100g N/ha + 50g P/ha

VARIETY: N17600-02
COMPANY: AGRISEED
PLANTING DATE: 26 March 2014
SPACING: 90cm x 25cm
FERTILIZER RATE: 100g N/ha + 50g P/ha

VARIETY: N17600-02
COMPANY: AGRISEED
PLANTING DATE: 26 March 2014
SPACING: 90cm x 25cm
FERTILIZER RATE: 100g N/ha + 50g P/ha

VARIETY: N17600-02
COMPANY: AGRISEED
PLANTING DATE: 26 March 2014
SPACING: 90cm x 25cm
FERTILIZER RATE: 100g N/ha + 50g P/ha

VARIETY: N17600-02
COMPANY: AGRISEED
PLANTING DATE: 26 March 2014
SPACING: 90cm x 25cm
FERTILIZER RATE: 100g N/ha + 50g P/ha



WOKOZIM

hayat

20 ml
100 ADET / PCS / LIT

AYES

Seminis

Expanding the use of Biocontrol



Project Deliverables

- 500 farmers employed biocontrol on small scale trial plots
- Agrodealers established who can store and provide technical support to a range of biocontrol technologies.
- Farmers trained and champions appointed to spread the message.
- Regulatory, industry, non governmental and governmental authorities Authorities involved. PCPB, KEPHIS, DIFID, SNV, KMT

Next stages

- Scale up and integration with other biocontrol providers, and organisations, SABO, South Africa. Etc.

Asante Sana!

tom.mason@dudutech.com

+447795638105

+254728305750

www.dudutech.com

www.flamingo.net

@thomaswmmason

#dudutech360