



# Are GM crops fit for purpose? If not, then what?

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# Why the GM route won't feed a hungry Africa

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# Eric Kisiangani

## Practical Action Kenya



**Eric Kisiangani currently coordinates Practical Action's climate change adaptation initiatives in Kenya.**

**He has over 15 years working experience of developing and strengthening smallholder agriculture in Kenya's dry lands and rainfall areas.**

**He holds a Bachelor of Science degree in agriculture and Diploma in Agriculture education and extension.**

Tools

Labour

Weather

Water

Pests

Soil

Seeds

Land

Storage

Energy

Markets



# Lessons from the first Green Revolution

- Lack of irrigation
- Inability to afford inputs
- Depletion of soils
- Stagnating yields

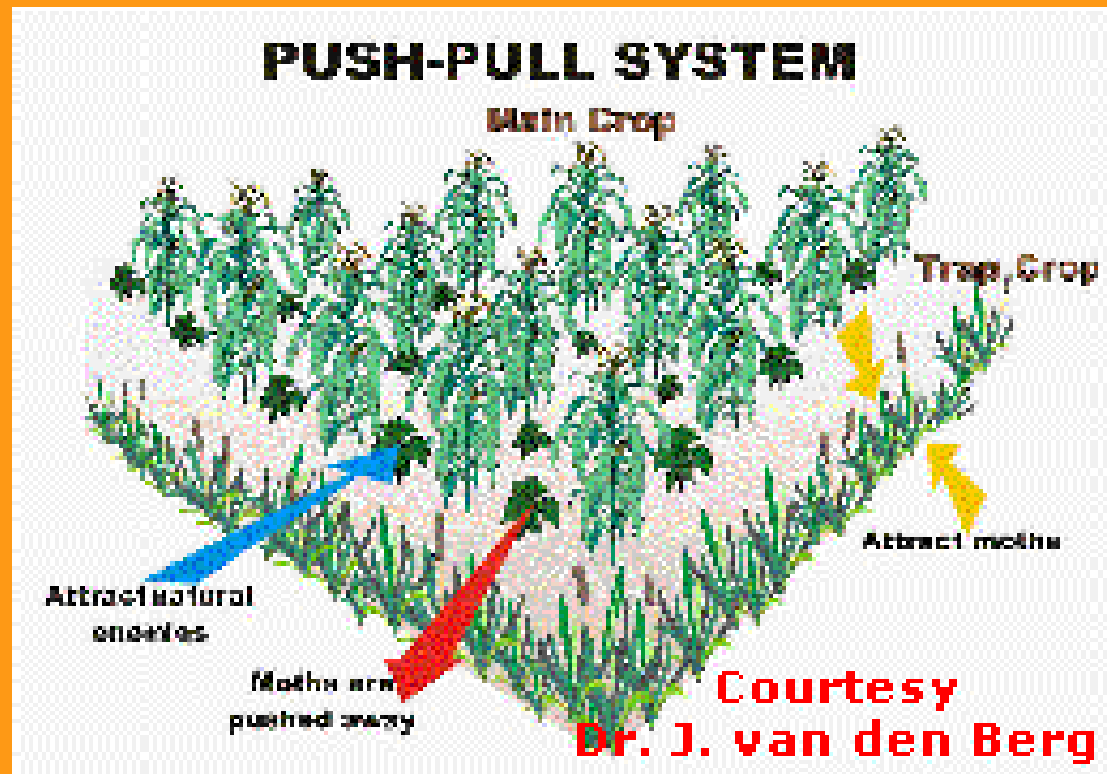
# What is the cost of the perfect seed?



# Maize

- Africa's second most important crop
- Production constrained by drought, soil fertility and pests.
- Bt Maize or existing management methods?

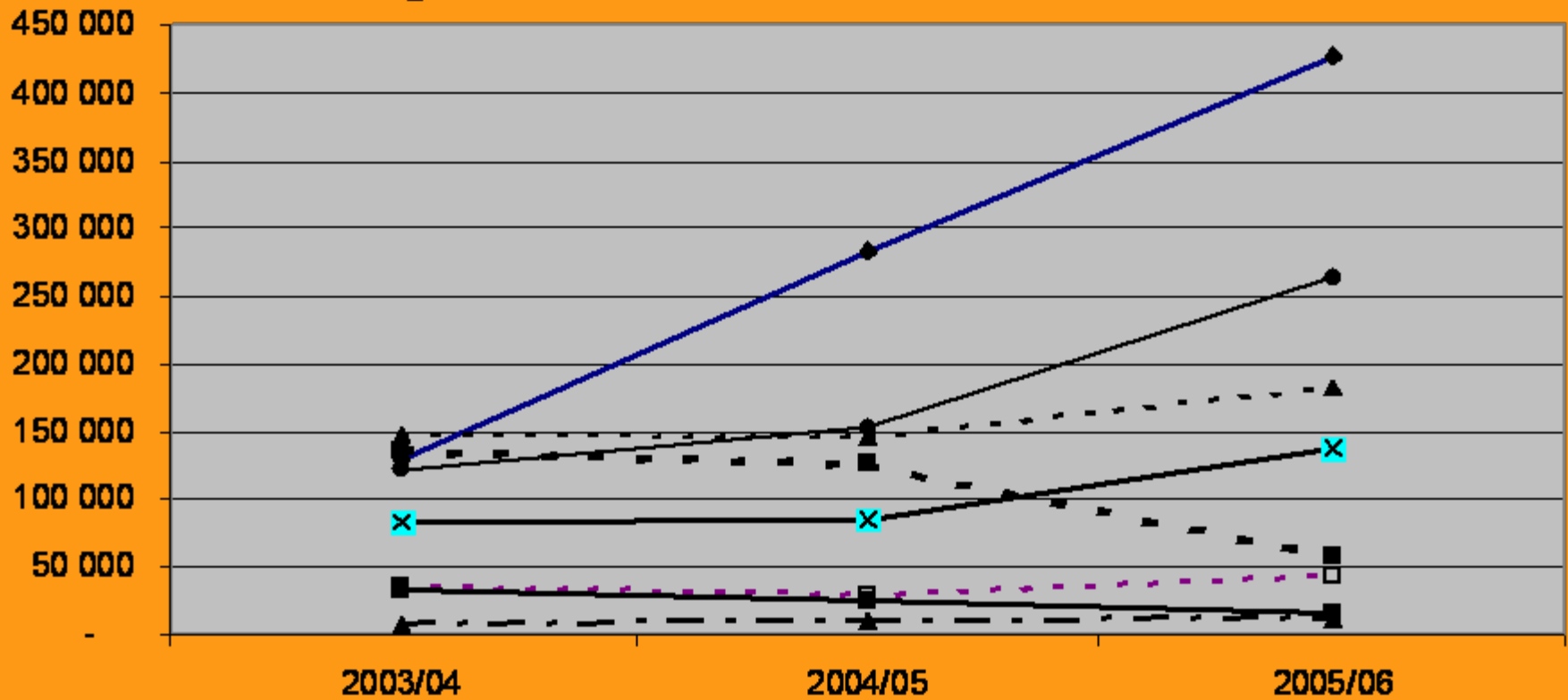
“A system that’s enhancing justice and sustainable agriculture”





# Invisible agriculture

Figure 1 DFID Sector Expenditure in Africa (£ '000)



# Diversity is key to the future of agriculture



# Sweet potato

- Sweet potato is major crop in small scale agriculture in Africa
- Sweet potato virus disease (SPVD) is important
- GM not effective in controlling
- Resistant varieties exist

# Losing diversity

- Around 1.6 billion people depend on farm-saved seed
- More than 90 per cent of crop varieties have been lost from farmers' fields in the past century
- Loss of crop species estimated at 2% per year

# Profits for the few

**Table 1: World's Top Ten Seed Corporations**

	<b>Company</b>	<b>2002 Seed sales (US\$ millions)</b>
1	Dupont (Pioneer) (USA)	2,000
2	Monsanto (USA)	1,600
3	Syngenta (Switzerland)	937
4	Seminis (USA)	453
5	Advanta (Netherlands)	435
6	Groupe Limagrain (Vilmorin Clause, France)	433
7	KWS AG (Germany)	391
8	Sakata (Japan)	376
9	Delta & Pine Land (USA)	258
10	Bayer Crop Science (Germany)	250

Source: ETC Group.

**10 Corporations own 60% seeds in 2006**

# Corporate control

## **5 companies control:**

- 50% of all agricultural biotechnology patents
- 70% of all patents on genes for wheat
- 47% of all patents on genes for sorghum

# Preserving diversity



# Reducing Risk

"I have been able to feed and clothe my family, and educate my children using this strategy of saving my own seed, and planting many varieties of crops so that I can harvest one where another fails"

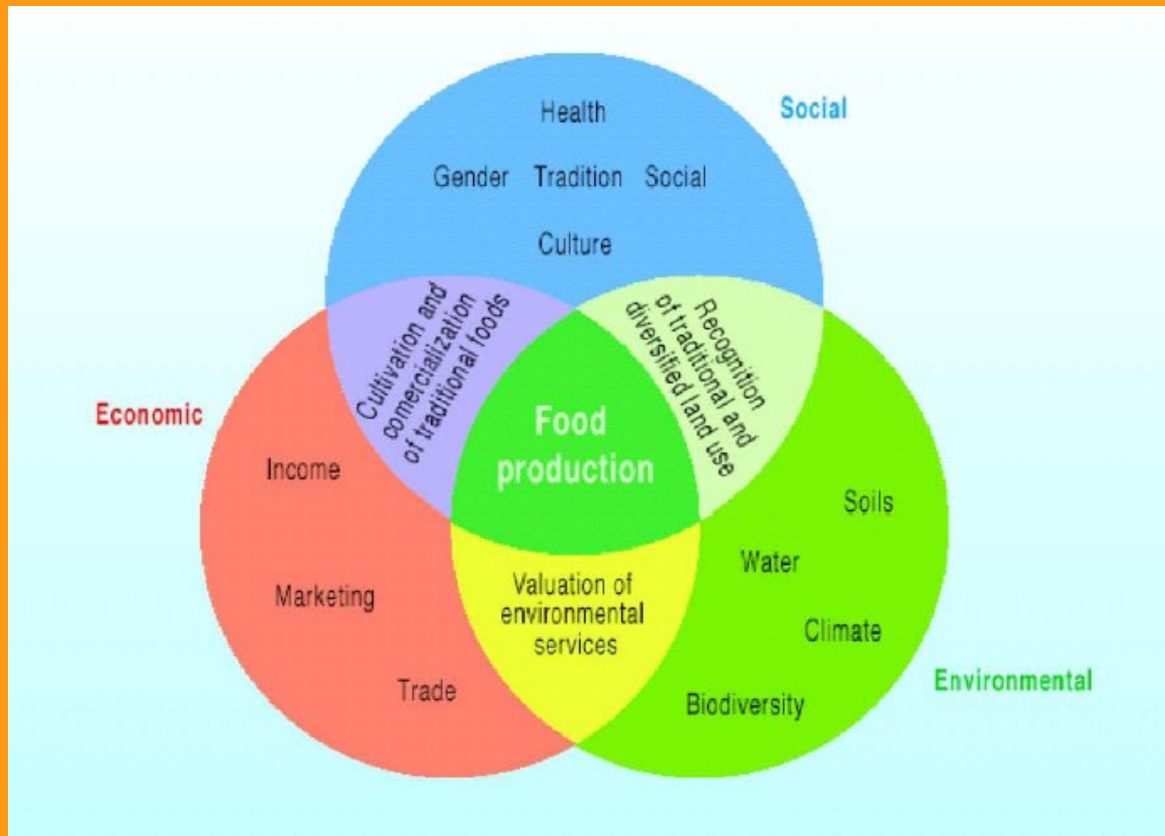
Steven Nchugu, Tharaka, Kenya



# GM...

- **Distracts** from the real problems
- **Distorts** funding and research priorities
- **Destroys** choice for farmers

# Enduring agriculture...



More resources  
available at the website  
[www.feedingtheworldconference.org](http://www.feedingtheworldconference.org)



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