Foresight Exchange Workshop

“How to integrate agriculture and environmental stakes in foresights?”

Presentation n°7 (T. Hichert, IFR)
Future of agriculture in Africa study

With the support of the following institutions:

Beijing, 16th October 2011
Future of Agriculture in Africa study

Conducted for Africa’s largest bank – findings not public

1. To establish in greater detail the patterns of production, trade and consumption of agricultural products in Africa

2. To identify, by means of horizon scanning, emerging trends, drivers, signals and potential wild cards that may shape the future of African agriculture

3. To construct scenarios of plausible futures based on key drivers

4. Thereby developing a holistic picture of emerging African agriculture in order to identify broad areas of business opportunities.
Innovative?

- Combination of ‘traditional’ and futures approaches
- Horizon scanning (undirected and conditioned viewing)
- Accelerated scenario planning methodology: facilitated group strategic conversation from multiple expert perspectives
- Visualisation of scenario gameboard with driving forces
- Political, economic factors integral part of study
Horizon Scanning – Trend diffusion

- The number of cases; degree of public awareness

- Local, few cases; emerging issues
  - Scientists, artists, radicals
  - Specialists, journals and websites
  - Magazines, websites, documentaries
  - Newspapers, news magazines
  - Government institutions

- Global, multiples dispersed cases; trends and megatrends
  - Wildcard
## Modes of scanning

<table>
<thead>
<tr>
<th>Scanning Modes</th>
<th>Information need</th>
<th>Information use</th>
<th>Amount of targeted effort</th>
<th>Number of sources</th>
<th>Tactics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Undirected viewing</strong></td>
<td>General areas of interest; specific need to be revealed</td>
<td>Serendipitous discovery &quot;Sensing&quot;</td>
<td>Minimal</td>
<td>Many</td>
<td>Scan broadly, a diversity of sources taking advantage of easily accessible &quot;Touring&quot;</td>
</tr>
<tr>
<td><strong>Conditioned viewing</strong></td>
<td>Able to recognise topic of interest</td>
<td>Increase understanding &quot;Sense-making&quot;</td>
<td>Low</td>
<td>Few</td>
<td>Browse in pre-selected sources on pre-specified topics of interest &quot;Tracking&quot;</td>
</tr>
<tr>
<td><strong>Informal search</strong></td>
<td>Able to formulate queries</td>
<td>Increase knowledge within narrow limits &quot;Learning&quot;</td>
<td>Medium</td>
<td>Few</td>
<td>Search is focussed on an issue or event, but a good-enough search is satisfactory &quot;Satisficing&quot;</td>
</tr>
<tr>
<td><strong>Formal search</strong></td>
<td>Able to specify targets</td>
<td>Formal use of information for planning &amp; acting &quot;Deciding&quot;</td>
<td>High</td>
<td>Many</td>
<td>Systematic gathering of information on a target following some method or procedure &quot;Retrieving&quot;</td>
</tr>
</tbody>
</table>

Source: Choo
# Modes of Scanning

<table>
<thead>
<tr>
<th>UNDIRECTED VIEWING</th>
<th>CONDITIONED VIEWING</th>
<th>INFORMAL SEARCH</th>
<th>FORMAL SEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Sensing”</td>
<td>“Sense-making”</td>
<td>“Learning”</td>
<td>“Deciding”</td>
</tr>
<tr>
<td>World Wide Web / Internet services</td>
<td>←-------------------------→</td>
<td>Online Database search services</td>
<td></td>
</tr>
<tr>
<td>Secondary sources</td>
<td>←-------------------------→</td>
<td>Primary sources</td>
<td></td>
</tr>
<tr>
<td>External reports, forecasts</td>
<td>←-------------------------→</td>
<td>Commissioned research, models</td>
<td></td>
</tr>
<tr>
<td>Novelty, variety</td>
<td>←-------------------------→</td>
<td>Accuracy, actionable</td>
<td></td>
</tr>
<tr>
<td>Coarse-grained, fuzzy focus</td>
<td>←-------------------------→</td>
<td>Fine-grained, sharp focus</td>
<td></td>
</tr>
<tr>
<td>Many-to-many communications</td>
<td>←-------------------------→</td>
<td>One-to-one communications</td>
<td></td>
</tr>
</tbody>
</table>

Source: Choo
FUTURE OF AGRICULTURE IN AFRICA: HORIZON SCAN

SCAN SECTION

Financing, Donor and Investment issues:
- Regulatory response to the recent global financial crisis may create constraints for commercial banks in Africa
- Cocoa king Anthony Ward is hungry for African food production
- Agri-projects under-invested
- Funding for African agriculture starts to flow
- African farms lure overseas investment - Funds seek assurances on land ownership
- Impact investing for Chinese investors in Africa
- “Now everyone’s looking at Africa”

Agricultural production and productivity issues:
- Challenges of farming in Africa
- New “Green Revolution” action plan
- Realising the potential of African aquaculture
- Woolworths’ sustainable farming initiative making progress
- IDC to study SA’s bamboo-related manufacturing prospects
- Biofuels Don’t Threaten Food Security – Study

Economic Issues:
- Report: Lions on the Move
- Food price hikes and volatility explanations
- The Land Grab issue
- India, China want services on par with agri-goods at WTO
- The State of Food Insecurity
- Africa Infrastructure report: ICT revolution helped boost African economic growth to an annual 4% between 2001 and 2005; other serious infrastructure gaps identified
- Infrastructure deficit deters foreign investment in Africa
Political Issues:
- Food sovereignty: the sharp end
- Angolan Parliament passes bio-fuels law, and 'Dutch disease'
- Overall governance performance scores in Africa driven by gains in economic and human development, but undermined by democratic recession
- Alarming gap between AU legal instruments and policy standards, and the policies and practices of most Member States
- Africa starting to take agriculture seriously
- US sees food security as next big Africa push

Environmental Issues:
- More water is key to food security
- Competing for Limpopo water
- EU biofuel targets threaten Africa
- Africa's fisheries and climate change
- Plant growth declines – study

Social Issues:
- Africa's Future Farmers
- The role of agriculture in reducing poverty
- Imports undermining agricultural sector jobs
- Women produce 80% of the continent's food
- Urbanisation trends in Africa
- Changing migration patterns - South Africa has become a major pole for migrants from all over the continent

Technology and Research Issues:
- A GM in Africa snapshot
- Agricultural research for development (AR4D)
- Technologies that have driven Chinese agriculture
- 'Resurrection plants' could hold the key to climate resistant crops
- Positive and negative externalities of Bt corn

ESSENTIAL READING SECTION
- Brazilian agriculture - The miracle of the cerrado: Brazil has revolutionised its own farms. Can it do the same for others?
- OPINION PIECE: Africa’s market-led development: pro-corporation, anti-farmer
- OPINION PIECE: Africa has the means to feed itself but does it have the support – and the will?
- INNOVATION: Ethiopia’s agricultural development strategy - relying on large commercial farms to catalyze a commercial revolution in smallholder agriculture
Forces shaping food markets in the region

1. The return of the “Development State” (e.g., Malawi, Zambia, Kenya, Tanzania) – largely responsible for surplus maize production in several countries. Is it sustainable?

2. Policies on land are resulting in allocation to local elites and large-scale interests

3. Most governments are not investing sufficiently in the public goods required to catalyse broad-based agricultural growth

4. Major reduction in interest rates in southern Africa over past 10 years, local private investment in storage and short-distance transport

5. Massive shortage of long-distance transport north of Limpopo

6. Result: national food production may be rising in some cases, but it is not resulting in broad-based income growth or poverty reduction.

Lots of ASSUMPTIONS around yield increases
Key agriculture uncertainties

- Access to land
- Access to global markets
- Substantive progress with regional trade and industrial policies
- Infrastructure
- Political stability
- Security of investments
- Corruption as a culture
- Fragile / failing states that upset the continental balance and / or commercial opportunities?
- 2020 demand patterns
- Governance system
- Value-add opportunities
- Business, gov. NGO's trust
- Future profitability
- Role of small farmers
- Misplaced investment in infrastructure
- Channelling of resources to support agric. development.
- Agricultural R&D
- Relative cost of labour and skills
ACCESS TO LAND
(TITLE & LIQUIDITY)

THE GOOD, THE BAD
AND THE UGLY
Like the title of this classical
Western, it takes all sorts (even 53 countries) when it comes to
competing for the bounty – in this
case the bounty of African
agriculture and its emerging
consumer markets. As in the Wild
West of old, there are some rules
to abide by, thankfully capitalist
oriented ones, but this doesn’t
mean the fight is fair. The big
guns tend to win.

THE FULL MONTY
African countries deal with their
‘inhibitions’ (much like the process
went through by the unemployed
English mineworkers who exposed
it all), and go the extra mile.
Borders are truly opened, markets
are truly accessible. To service this
burgeoning growth, farmers are
given access to land, and the title
deeds truly mean something. Now
all they need to do is leave their
hat on....

I HAD A FARM IN AFRICA
Like in the days of white mischief, a
warped sense of nostalgia prevails in
African countries. Powerful politicians
and patronising chiefs control access
to land and their whims control
farmers’ fates. Make no mistake,
there are some magnificent farms in
some places, just a pity they belong
to shady sheiks. Just like Karen
Blixen never really ‘belonged’, so too
the land never really ‘belongs’ to
those farmers that will grow
produce, care for and nurture it.

TITANIC
The biggest, best, fastest, most
luxurious ship ever built – pity it all
ended up being about an iceberg.
So too about creating continent-
wide integrated markets and free
trade agreements with all the bells
and whistles – pity it all ends up
being about the farmers needing to
have the security of owning the
land so that they can borrow
money and produce year after year
for those markets.

53 COUNTRIES

CAPE TO
CAIRO

NO TENURE
ACCESS TO LAND
(TITLE & LIQUIDITY)

THE GOOD, THE BAD
AND THE UGLY

THE FULL
MONTY

Democracy & good governance
Preferred future

Tourism
Competitiveness
ICT, production
Education
Supply chain

Fresh goods
Infrastructure
Consumer demand
ICT, infrastructure

I HAD A FARM
IN AFRICA

Present

TITANIC

Big country IDPs
(subsidies)

Aid agencies

Lack of
transparency
Patronage politics
Tragedy of the commons

NO TENURE

53 COUNTRIES

CAPE TO
CAIRO

= driving forces
<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa's collective GDP in 2020</td>
<td>$2.6 trillion</td>
</tr>
<tr>
<td>Africa's consumer pending in 2020</td>
<td>$1.4 trillion</td>
</tr>
<tr>
<td>The number of Africans of working age in 2040</td>
<td>1.1 billion</td>
</tr>
<tr>
<td>The number of African households with discretionary income in 2020</td>
<td>128 million</td>
</tr>
<tr>
<td>The portion of Africans living in cities by 2030</td>
<td>50%</td>
</tr>
</tbody>
</table>

McKinsey Global Institute
“The ...emerging “spaghetti bowl” of regional trade agreements among African countries, while perhaps being done with good intentions, in practice is not having demonstrable salutary effects; Many ... investors find them at best, ineffective, or at worst, confusing, and not conducive to attracting international commerce.” -- World Bank