



1ST EUROPEAN SORGHUM CONGRESS

WORKSHOP

FROM ENERGY PRODUCTION TO FOOD AND FEED

SORGHUM IN MALT HOUSES FOR BEER PRODUCTION : THE AFRICAN EXPERIMENT





AGENDA

- **SORGHUM PRODUCTION IN AFRICA : KEY FACTS & TRENDS**
- **SORGHUM BEER AS KEY DRIVER FOR INCREASING SORGHUM PRODUCTION IN AFRICA**
- **SOCIAL & ECONOMICAL IMPACT OF SORGHUM BEER PRODUCTION IN AFRICA**
- **Q&A SESSION**



PERSONAL DETAILS & PROFESSIONAL EXPERIENCE

■ BOP SANDRINO-ARNDT

- Head of AgriBusiness Development for Central Africa – OCP AFRICA CAMEROON
- Associate Consultant of the WorldBank/SFI for Agribusiness Dev Program in Central Africa
- MBA in Business Management & Corporate Finance (Sorbonne Graduate School of Business - 2008)

■ Professional Experience :

- Over 18 years of professional experience in the fields of sales & strategic business development
- 5 Years in the brewery sector in Africa, latest as Head of Agribusiness Dev. for Diageo Cameroon
- Over 10 years in Sales and Business Development in EMEA

SHORT PROFILE

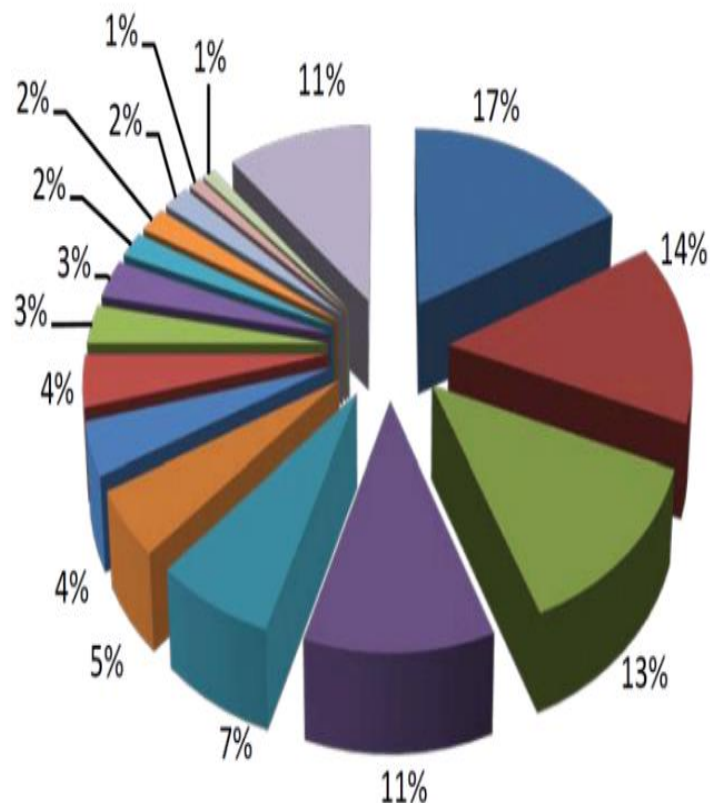
- ✓ **Business Development and sales management expert** with a strong success-driven and self-motivated leadership approach and more than **18 years of professional experience in the fields of sales, business and strategic partnerships development**
- ✓ Demonstrated ability **to define mid to long-term organizational strategic goals** based on extensive competition and market insights while ensuring their operational timely implementation
- ✓ **Ability to build and lead high-performance business development and sales management team** paired with an extensive experience in building sustainable customer relationships at executive level
- ✓ Strong commercial acumen paired with **excellent communication skills and the capability to readily engage and influence senior stakeholders at executive level**

EXPERTISE & KEY ASSETS

- ✓ **Established and proven contact network at Government level** (national and regional: CHAD, Central African Rep, Gabon) as well as toward multilateral dev. Organizations (**BAD, FIDA, GIZ, ICRISAT, IRAD, IFDC, JICA, World Bank**) and financial institutions (IFC, Microfinance Institutes-MFIs)
- ✓ **Extensive experience in initiating, launching and managing cross-regional agricultural research program/project** with the involvement of national/regional and international stakeholders
- ✓ **Established and proven contact network to key stakeholders and decision makers** of different ongoing agricultural development programs at national & continental level
- ✓ Demonstrated expertise in **identifying and establishing collaborative relationships with business enablers** (NGOs, Donators, research institutes, MFIs etc...).

SORGHUM IN AFRICA (1/5)

**AFRICA AS THE 1ST PRODUCER OF SORGHUM WORLDWIDE:
AROUND 26 MT**



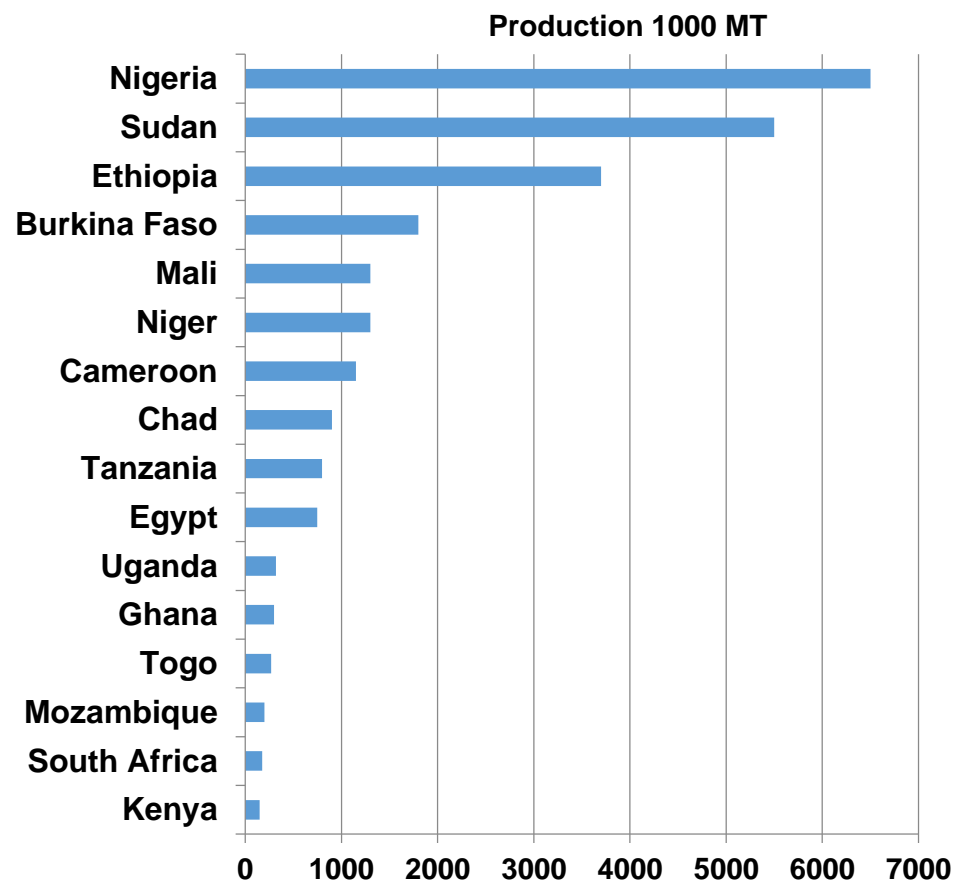
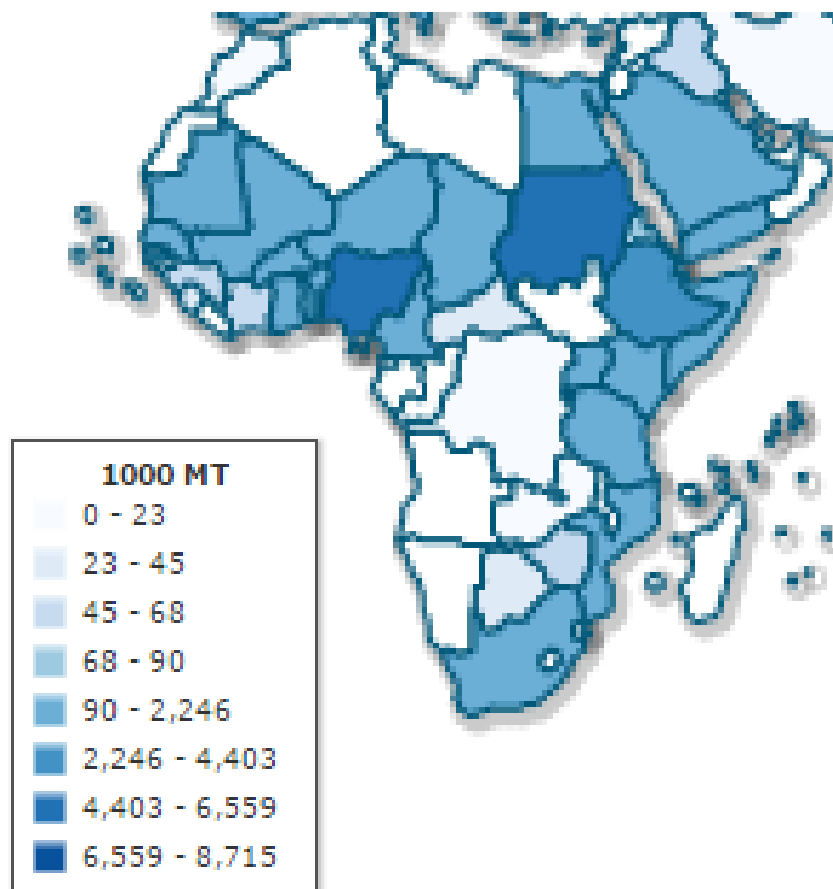
Rank	Country
1	United States
2	Mexico
3	Nigeria
4	Sudan
5	India
6	Argentina
7	Ethiopia
8	China
9	Australia
10	Brazil
11	Burkina Faso
12	Mali
13	Niger
14	Cameroon
15	Chad

Production (1000 MT)
10,338.00
6,900.00
6,500.00
5,500.00
5,500.00
3,900.00
3,700.00
3,200.00
2,200.00
2,000.00
1,800.00
1,300.00
1,300.00
1,150.00
900.00

Source: FAOSTAT 2015

SORGHUM IN AFRICA (2/5)

SORGHUM 2ND MOST PRODUCED CEREREL CROPS AFTER MAIZE IN AFRICA

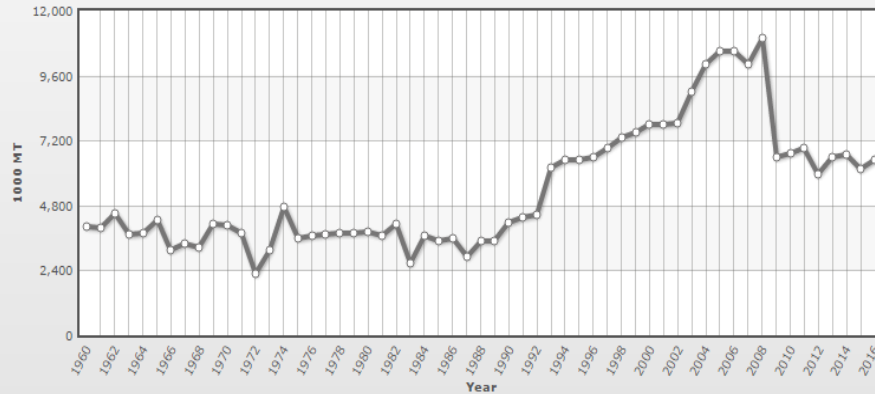


Source: INDEXMUNDI

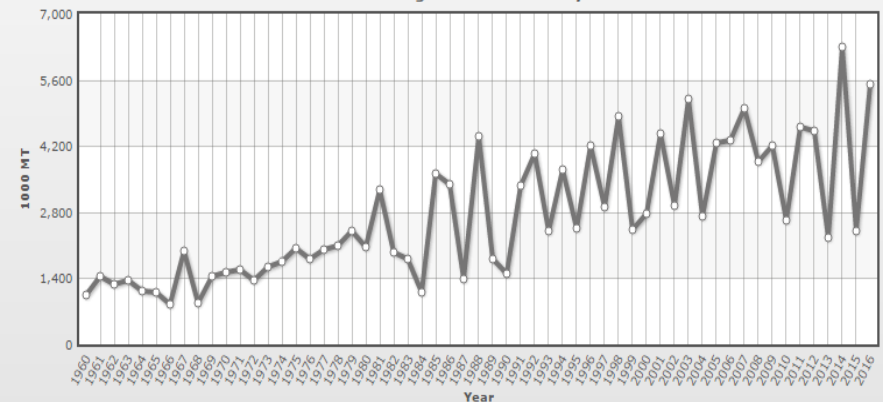
SORGHUM IN AFRICA (3/5)

70% OF THE PRODUCTION (17.500 KT) IN AFRICA DOMINATED BY 4 COUNTRIES (NIGERIA, SUDAN, ETHIOPIA, BURKINA FASO)

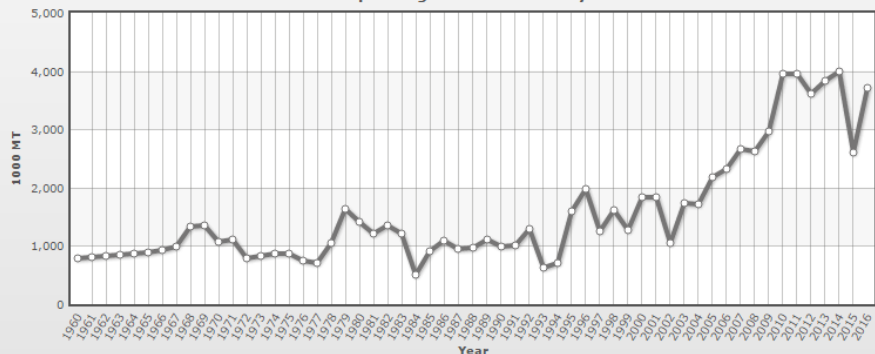
Nigeria Sorghum Production by Year



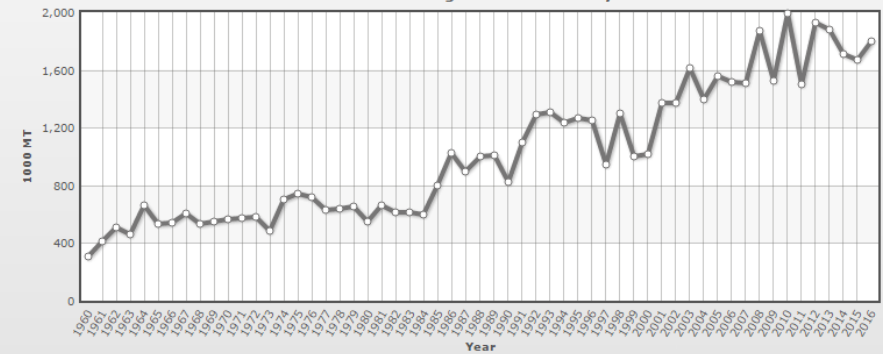
Sudan Sorghum Production by Year



Ethiopia Sorghum Production by Year



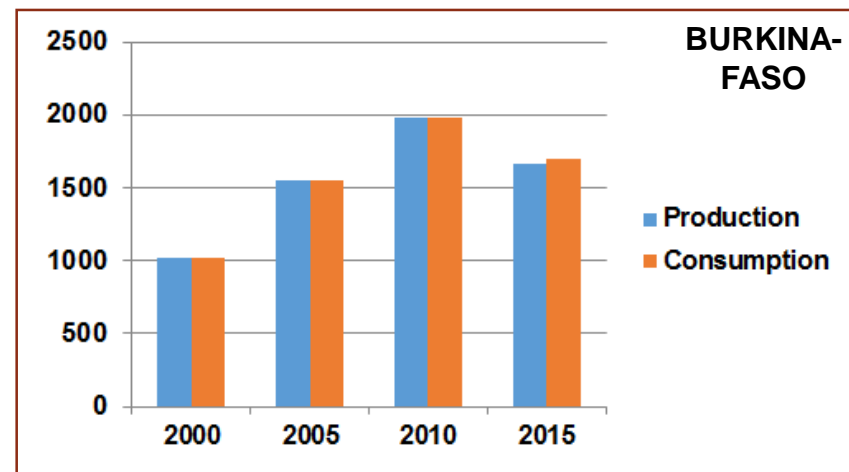
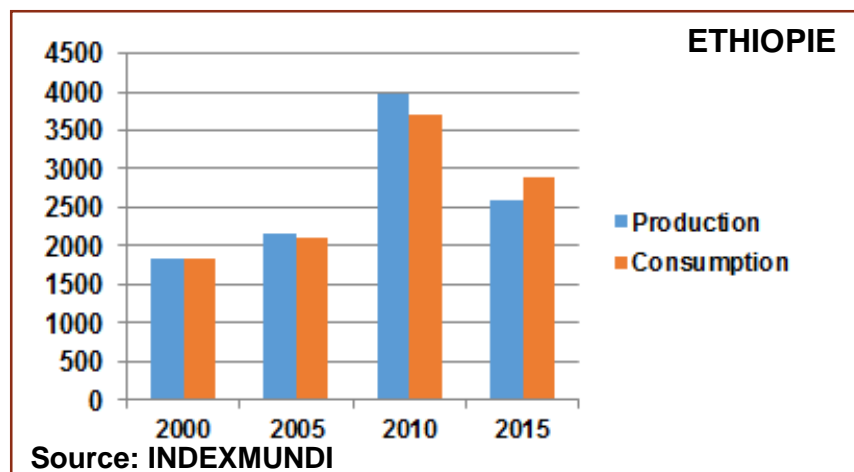
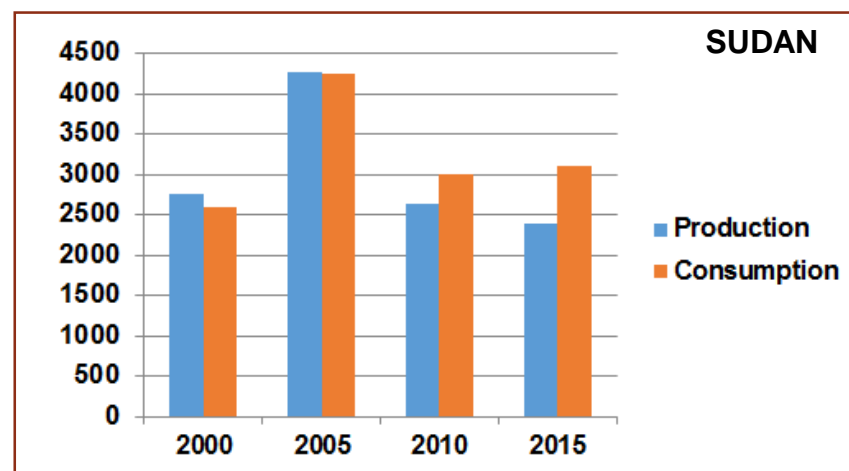
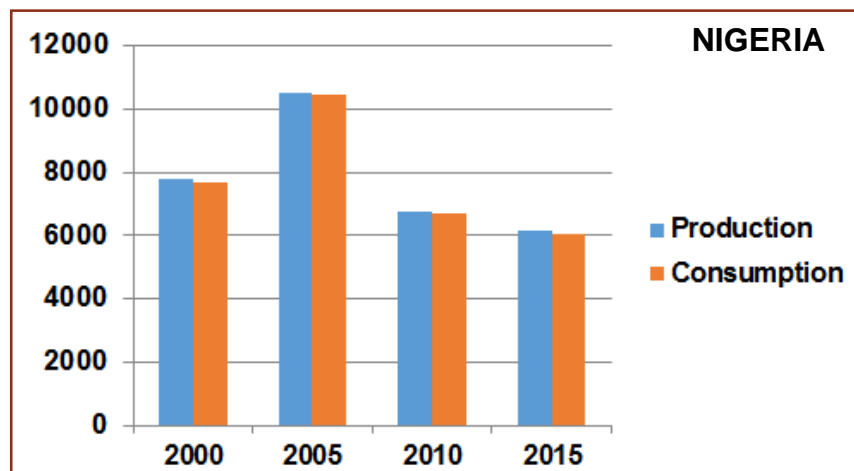
Burkina Faso Sorghum Production by Year



Source: INDEXMUNDI

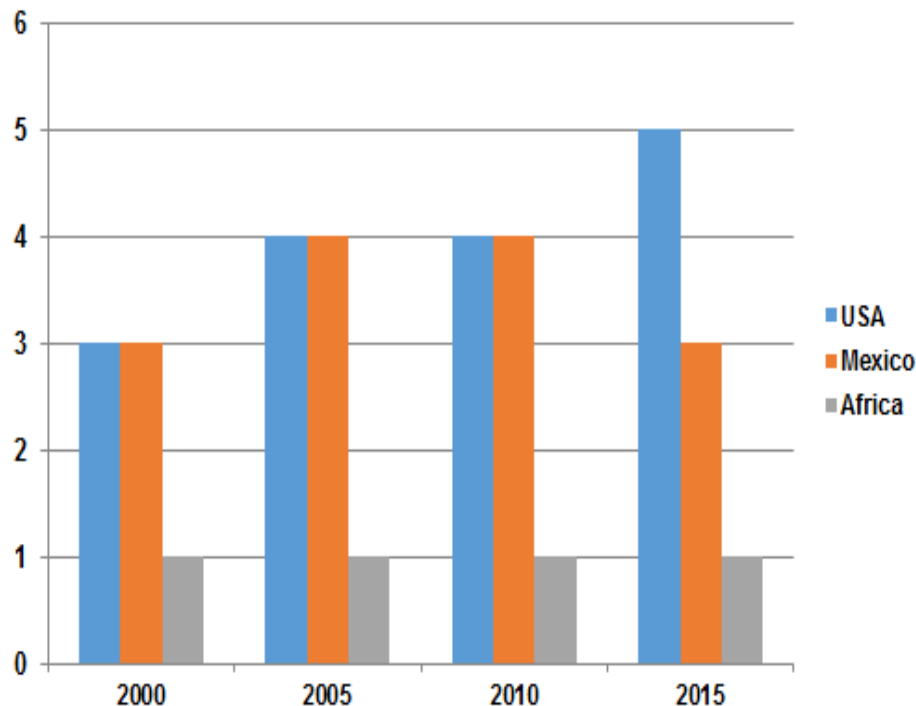
SORGHUM IN AFRICA (4/5)

THE PRODUCTION OF SORGHUM IS ALMOST FULLY CONSUMED LOCALLY

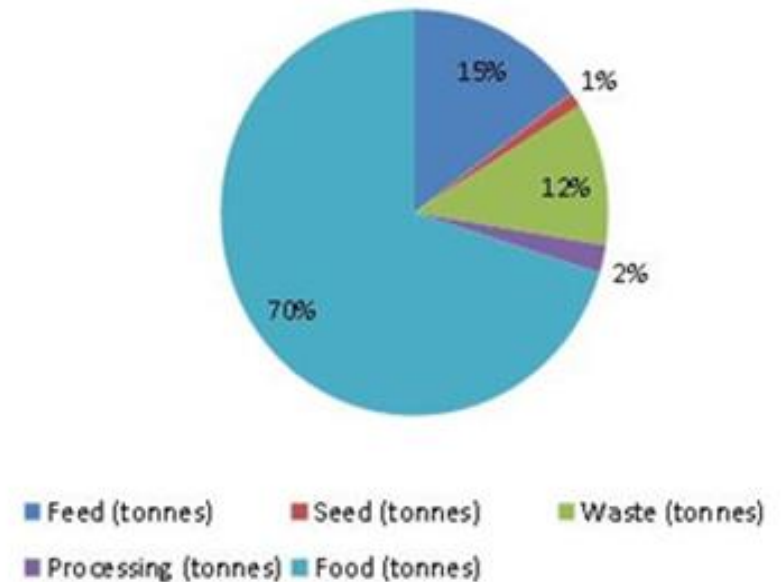


SORGHUM IN AFRICA (5/5)

PRODUCTIVITY (LOW YIELD) IS STILL A BIG CHALLENGE FOR SORGHUM PRODUCTION IN AFRICA



SORGHUM PRODUCTION IS MAINLY USED FOR HUMAN NUTRITION (70%) AND ANIMAL FEED (15%)



Source: INDEXMUNDI

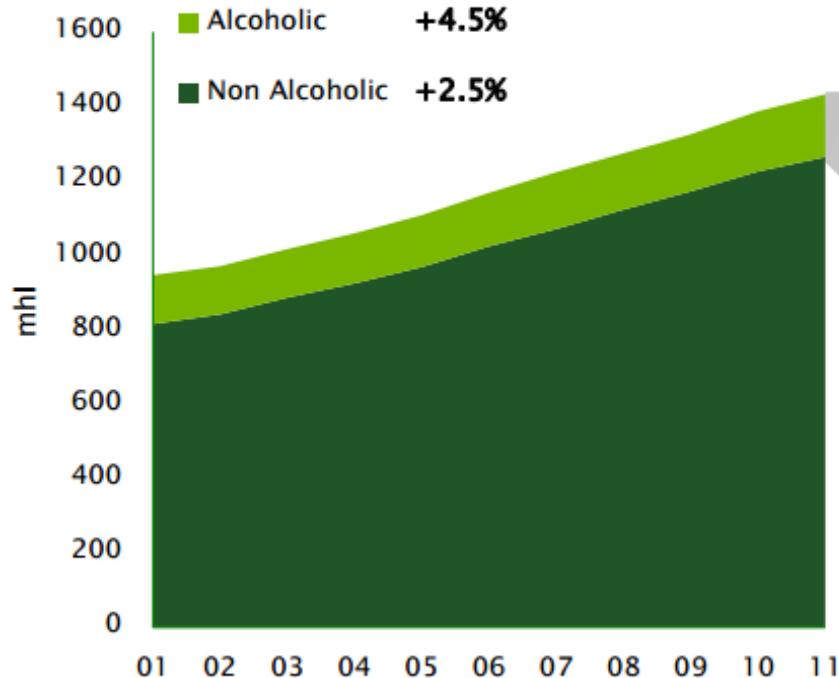
SORGHUM BEER IN AFRICA (1/10)

DEVELOPMENT OF BREWERED SORGHUM BEER PRODUCTION

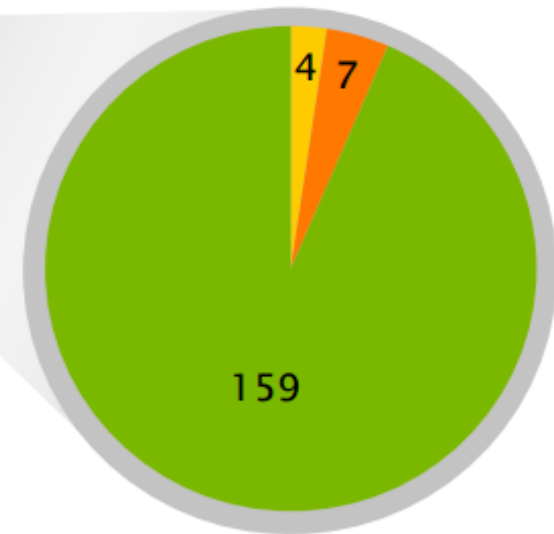
Africa beverage market

(2001–2011)

2001–11
CAGR:



Million hectolitres



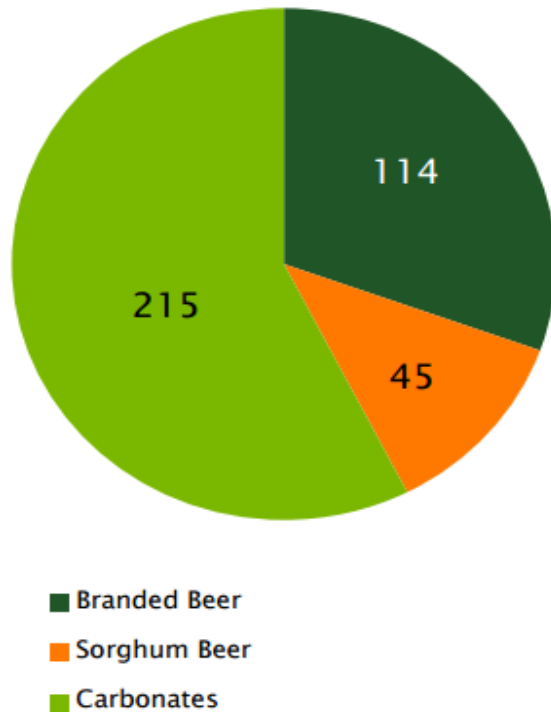
Wine Spirits Beer (incl. Sorghum)

Source: HEINEKEN FINANCIAL REPORT 2014

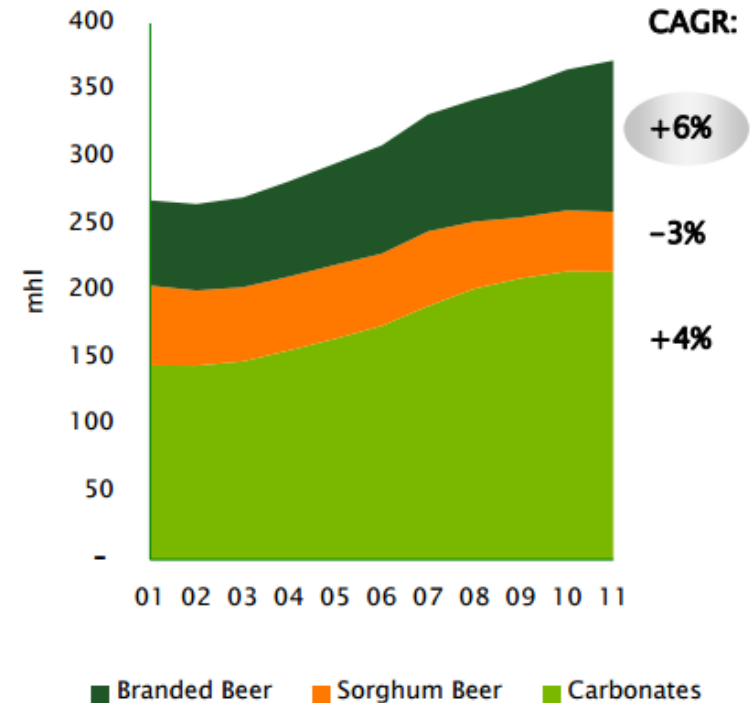
SORGHUM BEER IN AFRICA (2/10)

DEVELOPMENT OF BREWERED SORGHUM BEER PRODUCTION

Market categories (mhl)
Total 2011: 374 mhl



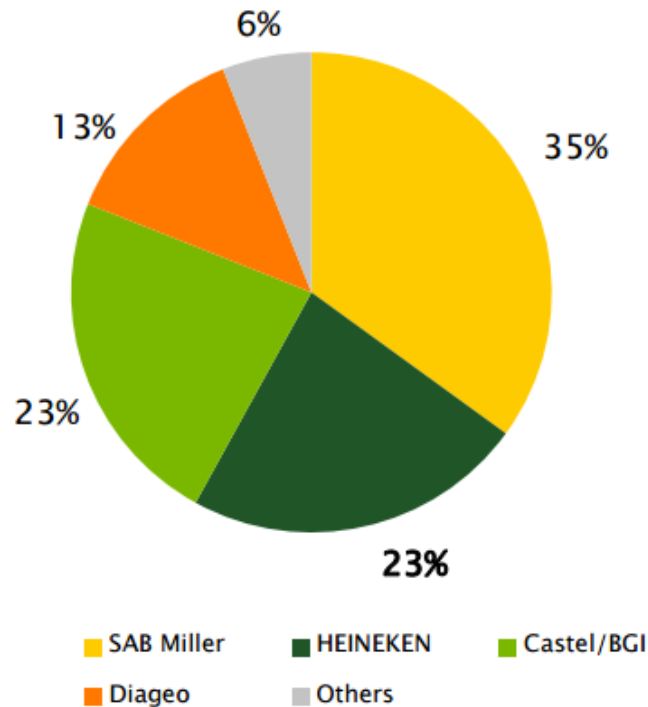
Category growth (mhl and % growth)
2001-11 CAGR +3.3%



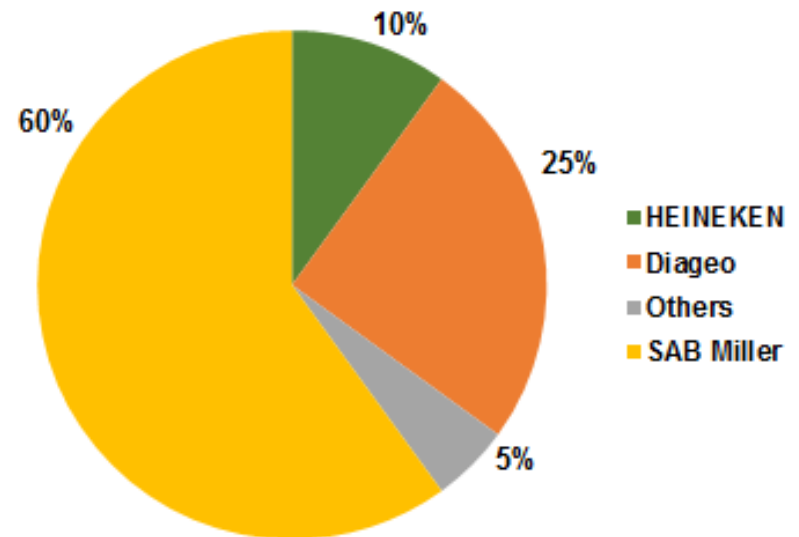
Source: HEINEKEN FINANCIAL REPORT 2014

KEY MARKET PLAYERS IN THE SORGHUM BEER PRODUCTION

Beer volume shares (2011)



Sorghum beer volume shares (2011)

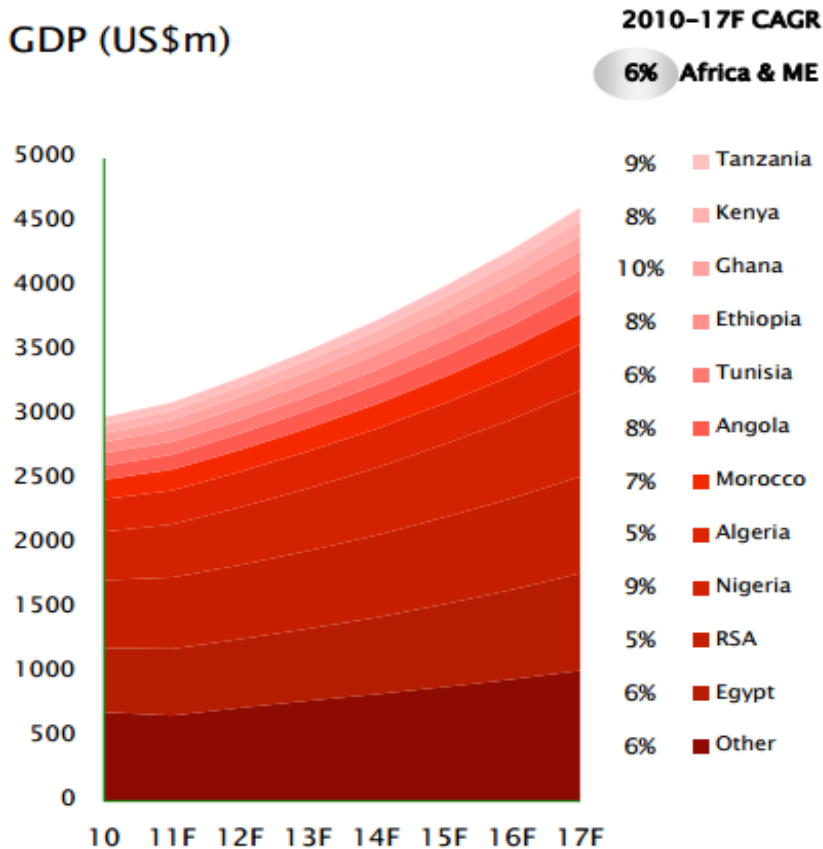


Source: HEINEKEN FINANCIAL REPORT 2014

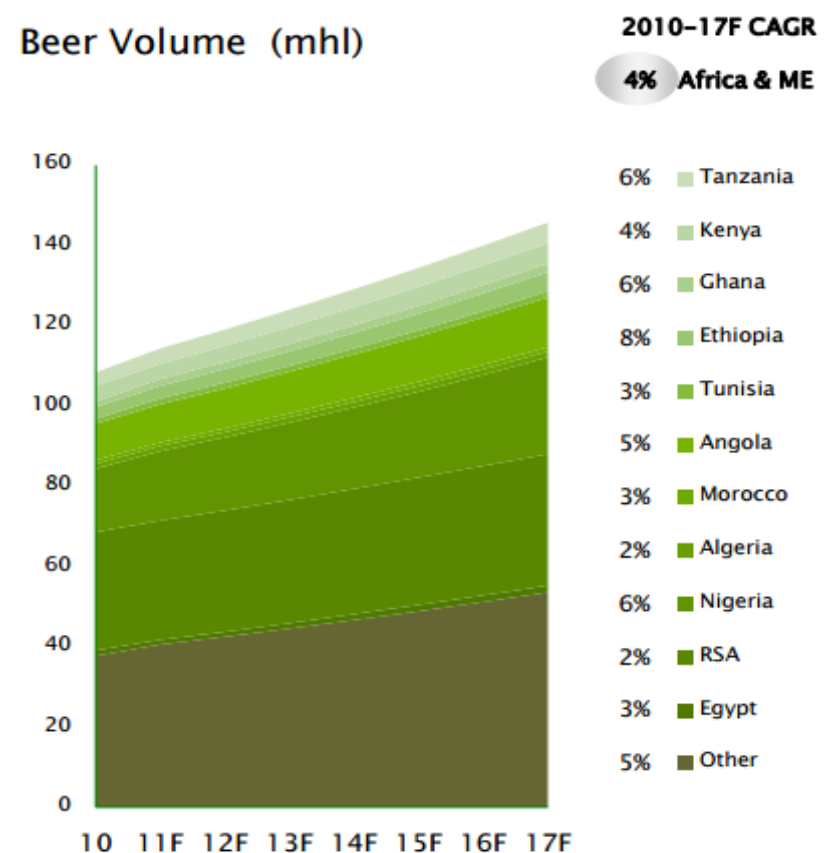
SORGHUM BEER IN AFRICA (4/10)

KEY DRIVERS FOR DEVELOPMENT OF BREWERED SORGHUM BEER PRODUCTION IN AFRICA

GDP (US\$m)



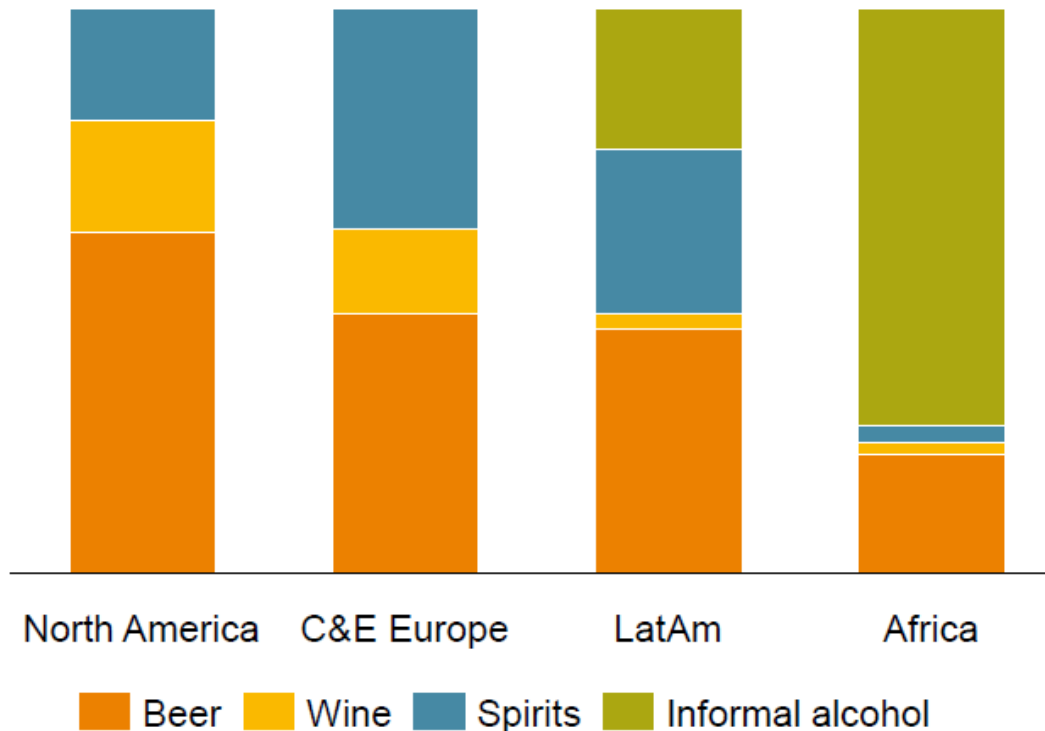
Beer Volume (mhl)



Source: HEINEKEN FINANCIAL REPORT 2014

KEY DRIVERS FOR DEVELOPMENT OF BREWERED SORGHUM BEER PRODUCTION IN AFRICA

Size of the alcohol market, est., %



In Africa, beer is highly aspirational but relatively expensive

Time taken to work for a beer in Africa

4 hours

vs 8 min in Europe

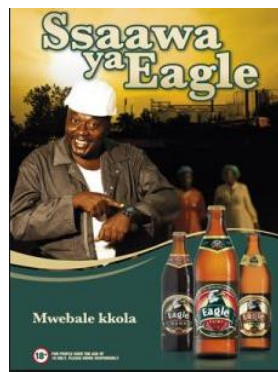
Source: HEINEKEN FINANCIAL REPORT 2014

SORGHUM BEER IN AFRICA (6/10)

BREWERED SORGHUM BEER BRANDS PORTFOLIO IN AFRICA



- **Brand name:** Chibuku Shake Shake, Chibuku Super
- **Sorghum content:** 60%
- **Initial Launch:** 2011
- **Countries:** Ghana, Mozambique, Tanzania
- **Price per 65cl:** \$US 0.85

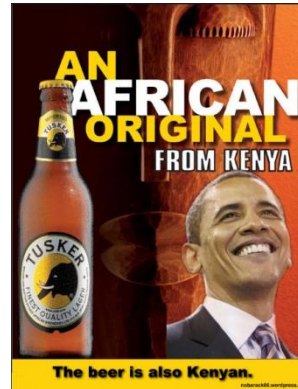


- **Brand name:** Eagle Lager, Eagle Light
- **Sorghum content:** 70%
- **Initial Launch:** 2012
- **Countries:** Uganda, Zimbabwe,
- **Price per 65cl:** \$US 0.75

SORGHUM BEER IN AFRICA (7/10)

BREWERED SORGHUM BEER BRANDS PORTFOLIO IN AFRICA

DIAGEO



- **Brand name:** Tusker Premium Lager, Tusker Lite, Tusker Malt
- **Sorghum content:** 100%
- **Initial Launch:** 2008
- **Countries:** Kenya, Tanzania, Uganda
- **Price per 65cl:** \$US 0.75



- **Brand name:** Harp Lager
- **Sorghum content:** 65%
- **Initial Launch:** 2013
- **Countries:** Nigeria, Cameroun
- **Price per 65cl:** \$US 0.80

SORGHUM BEER IN AFRICA (8/10)

BREWERED SORGHUM BEER BRANDS PORTFOLIO IN AFRICA



- **Brand name:** Star Lager
- **Sorghum content:** 70%
- **Initial Launch:** 2001
- **Countries:** Kenya, Tanzania
- **Price per 65cl:** \$US 0.75



- **Brand name:** NYONGERA Light
- **Sorghum content:** 90%
- **Initial Launch:** 2013
- **Countries:** Rwanda, Burundi
- **Price per 65cl:** \$US 0.85

SORGHUM BEER IN AFRICA (9/10)

SOCIAL & ECONOMICAL IMPACT OF THE SORGHUM BEER PRODUCTION IN AFRICA

DIAGEO



- Local sourcing ambition of 80% by 2020 (as of today 65%)
- Local sourcing projects launched in 5 countries (Cameroon, Ethiopia, Kenya, Ghana, Nigeria)
- Yearly consumed local cereals volume of 450.000 tons (over 900.000 tons by 2020)
- 350.000 farmers involved in the different local sourcing projects.
- Over 1.000.000 farmer relatives impacted indirectly by the different initiative in Africa
- Farmer revenues increased by 260% in the last 3 years

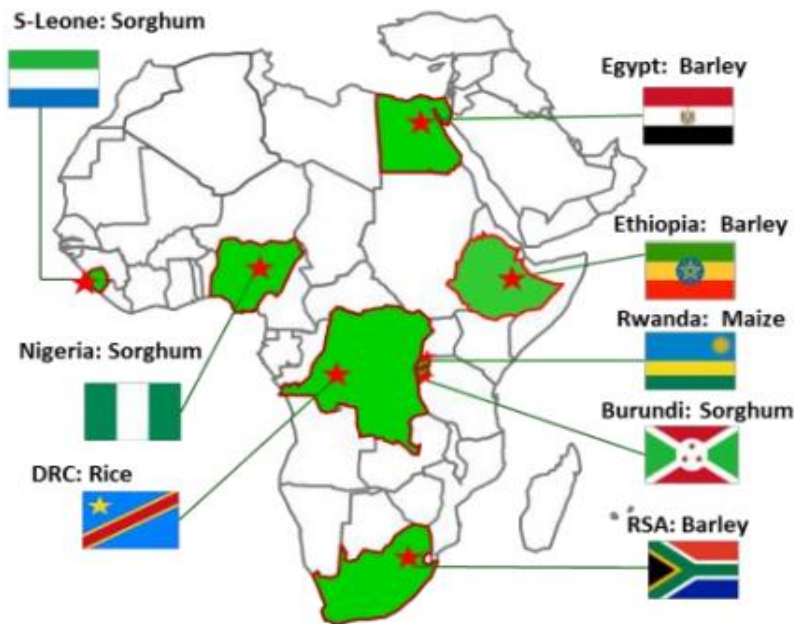


- Local sourcing ambition of 75% by 2020 (as of today 60%)
- Local sourcing projects launched in 7 countries (Ghana, Mozambique, South Sudan, Uganda, Tanzania, Zambia, Zimbabwe)
- Yearly consumed local cereals volume of 650.000 tons (over 1.200.000 tons by 2020)
- 600.000 farmers involved in the different local sourcing projects.
- Over 1.000.000 farmers relatives impacted indirectly by the different initiative in Africa
- Farmer revenues increased by 270% in the last 3 years

SORGHUM BEER IN AFRICA (10/10)

SOCIAL & ECONOMICAL IMPACT OF THE SORGHUM BEER PRODUCTION IN AFRICA

Local sourcing projects:



Local sourcing

- ◆ 60% ambition (48% so far)
- ◆ 120,000 farmers + dependents
- ◆ Improve livelihoods rural households
- ◆ Improve productivity and yield
- ◆ Reduce carbon footprint
- ◆ Secure sustainable supply

Health care

- ◆ 18,600 employees and dependents
- ◆ General health care
- ◆ HIV voluntary testing and treatment
- ◆ 26 clinics/ 13 doctors & 80 nurses
- ◆ HEINEKEN Africa Foundation Health clinic in Burundi
- ◆ Malaria project in Nigeria

Part of the African conversation

- ◆ World Economic Forum
- ◆ Clinton Initiative
- ◆ Private Investors for Africa



CONCLUSION

- **AFRICAN BEER MARKET IS GROWING FAST WITH LUCRATIVE OPPORTUNITIES FOR BIG PLAYERS OF THE BREWERY SECTOR**
- **BEER PRODUCTION COSTS ARE EXTREMELY HIGH IN AFRICA, THUS COST SAVINGS POTENTIAL TO MAINTAIN THE BOTTOM LINE IS OF HIGH INTEREST**
- **LOCAL SOURCING OF AGRICULTURAL INPUT HAS BECOME A KEY SUCCESS FACTOR IN DELIVERY MAINSTREAM BEER BRANDS FOR THE MIDDLE CLASS**
- **SORGHUM AS ONE OF THE MAIN AGRICULTURAL INPUT FOR BEER PRODUCTION IN AFRICA WILL BENEFIT FROM THIS TREND**
- **BREWERY INDUSTRY WILL IMPULSE THE TREND OF USING AGRICULTURAL INPUT (SORGHUM) FOR ANOTHER USE (ENERGY, FOODS, ANIMAL FEED)**
- **PRODUCTIVITY INCREASE THROUGHOUT THE AGRICULTURAL VALUE CHAINS IS STILL A CHALLENGE FOR LOCAL SOURCING OF AGRICULTURAL INPUT.**

Q & A SESSION



**Do You Have
Any Questions?**