

Improvement of breeding system

Facility improvement

Technology transfer

Mass breeding and marker-assisted selection became possible in KALRO Mwea



Examples of promising lines developed for Kenya

- Introgression of a blast resistant gene *Pi21*, *Gn1a*, *WFP* to local popular varieties
- Improvement of cold tolerance in local popular varieties
- Introduction of important traits such as aroma, long and slender grain shape, yield related traits, etc. to existing stress resistant varieties
- Introduction of yield related traits to local popular varieties
- Improving low fertility adaptability in a local popular variety



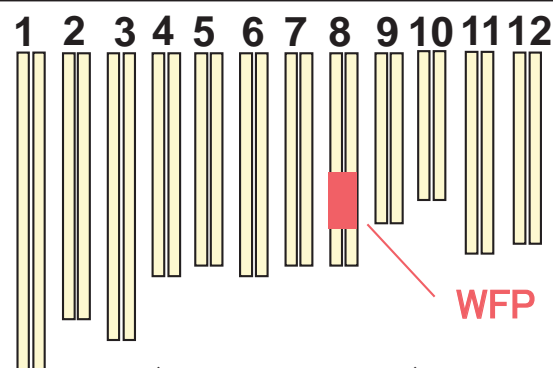
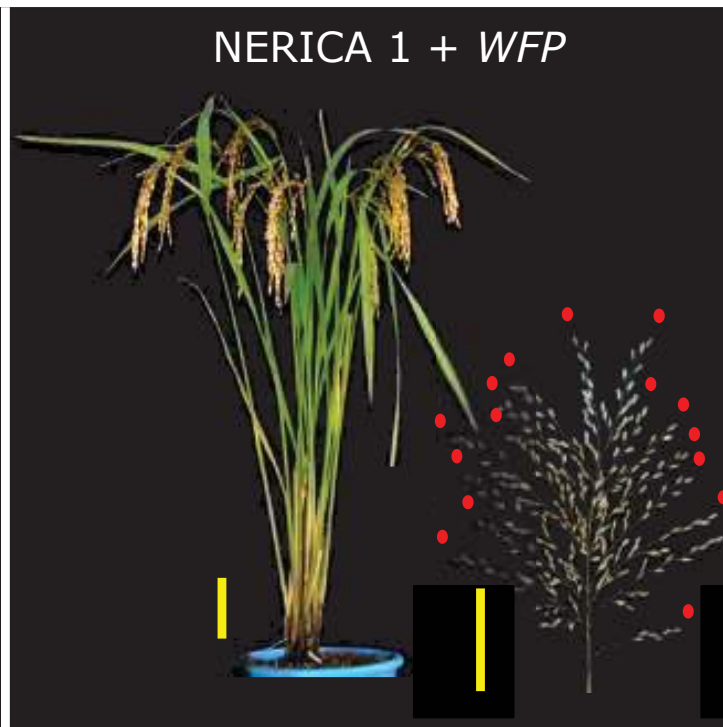
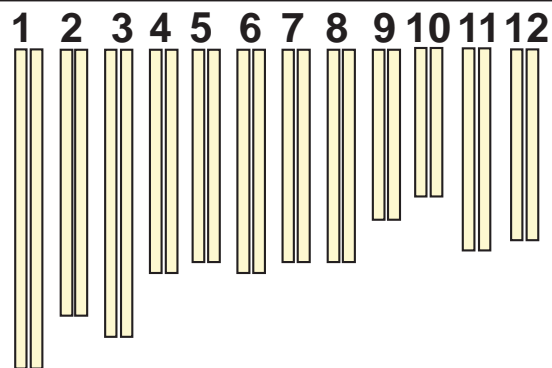
Blast resistance

Susceptible

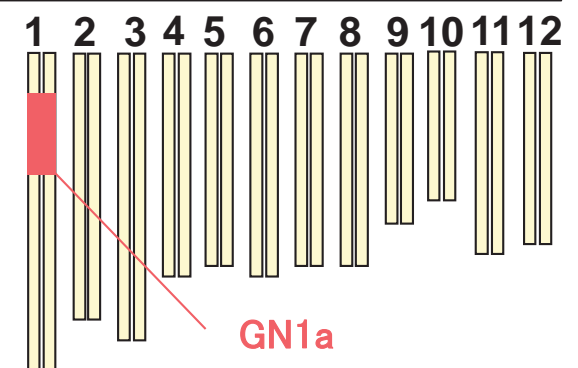


Blast resistant Basmati

Development of new varieties introgressed with genes for increasing grain number

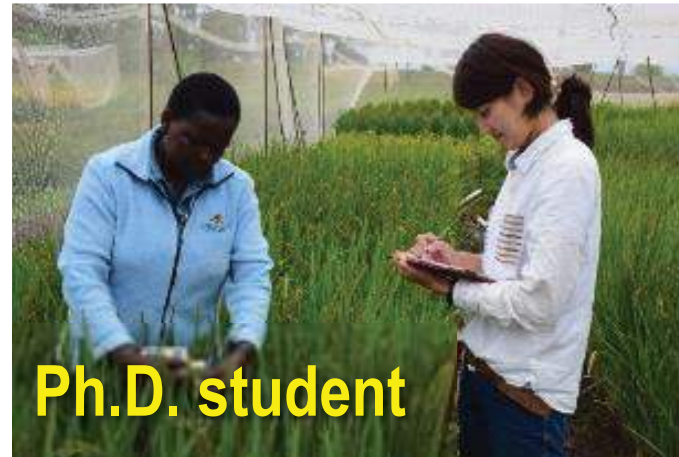


(Miura et al., 2010)



(Ashikari et al., 2005)

Technology transfers through collaborative research



Training of research assistants, technicians, workers



They play very important role for conducting research

International symposium



In December 2016, a international symposium was held in Nairobi with 105 participants from 12 sub-Saharan African countries, Japan and the Philippines

Capacity building in Japanese universities

Name	University	Field	Degree
Daniel Menge	Nagoya Univ.	Crop Science	Ph.D
Cornelius Wainaina	Nagoya Univ.	Plant Breeding	Ph.D
Emily Gichuhi	Okayama Univ.	Plant Breeding	Ph.D
Caroline Kundu	Shimane Univ.	Soil Science	Ph.D candidate
Peter Nthia	Nagoya Univ.	Plant Breeding	MSc
Jackline Wasilwa	Nagoya Univ.	Crop Science	MSc
Justine Kitony	to enter Nagoya Univ.	Plant Breeding	for Ph.D

Way forward

Current status:

- Promising breeding lines for blast resistance, cold tolerance, low fertility adaptability, high yielding, etc. have been developed
- Breeding facility & trait evaluation systems have been developed
- Improved fertilization management practices were proposed



Verification of the breeding materials and cultivation management practices in farmers field



After the project ends

- ① To develop new varieties
- ② Registration and release of the varieties
- ③ Seed production
- ④ Dissemination of the technology package (variety and management practices)

WAY FORWARD

- The rice research systems put in place need to be used to help address farmers constraints
- The molecular laboratory need to be used for collaborative research for sustainability
- KALRO to strengthen the core research team to ensure continued technologies production
- KALRO to address standby power and water issues
- Project to collaborate further with JICA and other partners for continued superior variety/ technology development
- KALRO to have MoUs for fostering robust functional collaboration

WAY FORWARD ^{ctd}

- To undertake joint research-farmers adaptability trials (GxExM) for the elite materials for possible release and commercialization to increase rice productivity
- To continue with trainings and exchange programs with partners
- To make SATREPS efforts benefit the region through enhanced collaboration
- To develop mechanisms for optimization of the research facilities for socio-economic wellbeing of the communities
- Develop value added products to spur rice demand

Acknowledgement

- Kenya Agricultural and Livestock Research Institute (KALRO)
- Japan International Cooperation Agency
- Japan science and technology
- MoALF&I, NIB, KU, JKUAT, UoN, CGovts,



Nagoya University



SATREPS

Science and Technology Research Partnership
for Sustainable Development Program

KENYA BUREAU OF STANDARDS (KEBS)

KENYA-JAPAN AGRICULTURAL DIALOGUE

13TH JULY 2018

INTERCONTINENTAL HOTEL NAIROBI

Mandate/Function

Kenya Bureau of Standards (KEBS)

KEBS is the National Standards body in Kenya; established through

- The Standards Act, Cap. 496 of the Laws of Kenya;
- Expanded scope -Legal Notices (LNs)

KEBS started its operations on 12th July 1974.

- Reports to the Ministry of Industry, Trade & Cooperatives.
- Operates an integrated infrastructure that encompasses Standards, Metrology and Conformity Assessment (SMCA) under one organization.

Mandate/Function

- a) Promote standardization in industry and commerce;
- b) Make arrangements or provide facilities for the testing and calibration of precision instruments for the determination of degree of accuracy for the issue of certificates in regard thereto;
- c) Make arrangements or provide facilities for examination and testing of commodities and any material and the manner in which they produced, processed or treated;
- d) Control use of standardization marks and distinctive marks;
- e) Prepare, frame, modify or amend specifications and codes of practice;

Mandate/Function

- f) Encourage or undertake educational work in standardization;
- g) Assist in the preparation and framing of any specifications or codes of practice;
- h) Provide for co-operation with a view to securing the adoption and practical application of standards;
- i) Provide for the testing of locally manufactured and imported commodities in determining compliance the Act or any other law dealing with standards of quality or description.

Mandate/Function

KEBS Services include: -

- Development of Standards
- Maintenance of Measurement Standards (Metrology)
- Technical support for multilateral and bilateral trade agreements
- Inspection
- Quality Assurance (Product certification)
- Market Surveillance
- System Certification
- Calibration and Testing services
- Training and Education
- Information Services (Library and Enquiry Point).

- Standards development
- Integration of standards in policies and regulation
- Collaborate in enforcement of standards
- Collaborate in creating awareness in the value chain
 - Application of standards
 - Food quality and safety
 - Compliance to standards
 - KEBS services

- Development of standards
- Application of standards
- Product certification
- Testing and calibration services
- Training services and sensitization workshops
- ISO 22000-Food Safety Management System, and HACCP)
- Collaborative agreements with industry associations on certification
- Market surveillance services

STRUCTURES FOR WORKING WITH COUNTY GOVERNMENTS

In collaboration with counties KEBS undertakes:

- Product certification for manufactured products
- Market surveillance
- Sensitization on application of standards and compliance

- Enters into collaborative agreements with other national standard bodies for:
 - Sharing of national standards;
 - Recognition & application of quality marks
- Makes arrangements for pre-shipment inspection through appointed inspection agencies for imports

Follow us on:



Kenya Bureau of
Standards
Quality products for quality life

Website: www.kebs.org

Thank you for your attention!!

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2nd Kenya – Japan Agricultural Cooperation Dialogue

Presentation by Kenya Investment
Authority

NAIROBI
13th July , 2018.

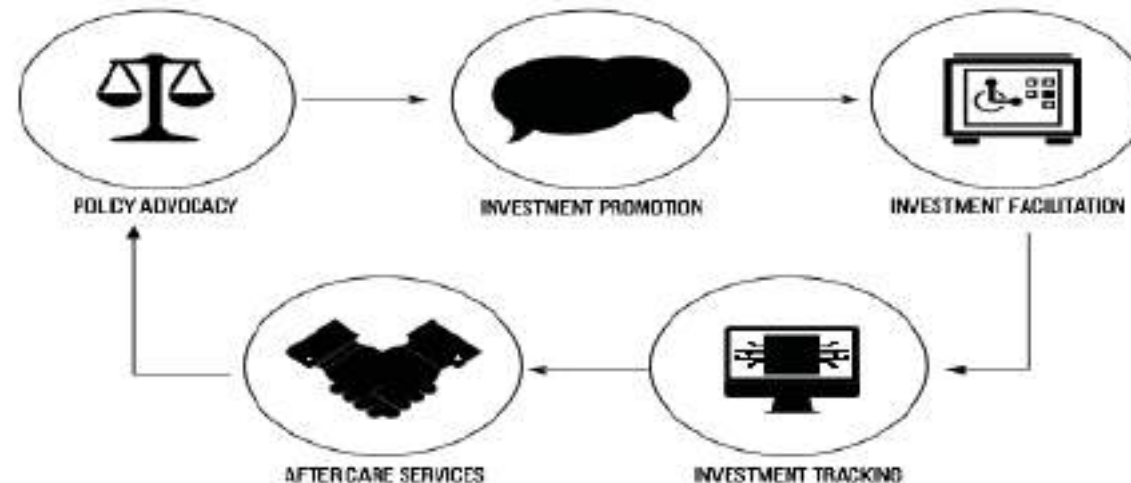


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KenInvest | Core Functions



INVESTMENT PROMOTION

- Providing information on investment opportunities or sources of capital.
- Promoting the opportunities for investment available in Kenya by organizing forums, workshops and other marketing initiatives.

INVESTMENT FACILITATION

- Investor tracking after care services
- Assisting in issuing investment certificates
- Assisting in obtaining necessary licenses and permits
- Assisting in obtaining incentives or exemptions under various acts of law & other regulations.
- Facilitate joint venture between local & foreign investors

POLICY ADVOCACY

- Stakeholder engagements
- Reviewing the investment environment and making recommendations to Government and other stakeholders with respect to changes that would promote and facilitate investment, including changes in licensing requirements.

Establishing a company in Kenya has been made easy especially with the setting up of a One Stop Center at KenInvest

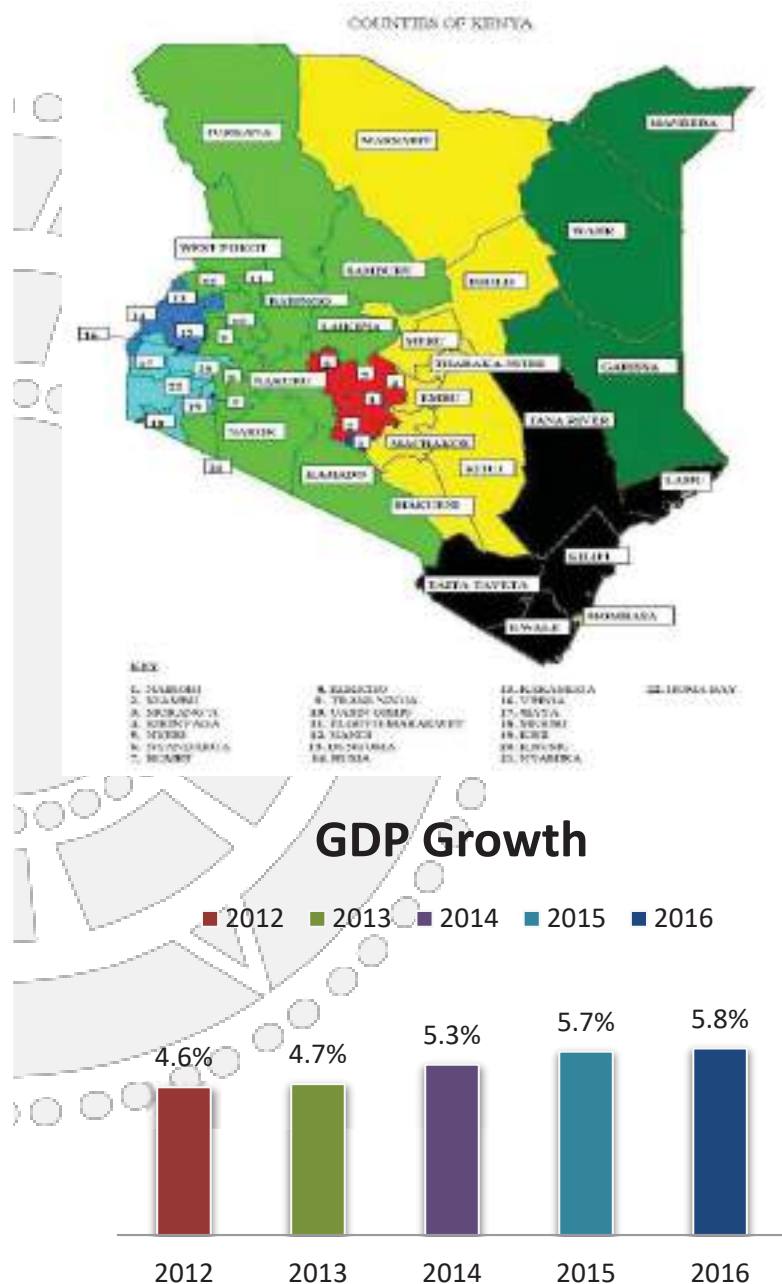


Milestones in Kenya's Investment Facilitation



- 
- a. Modernization & Simplification of laws: Companies Act, Insolvency law, etc.
 - b. Focus on Ease of Doing Business reforms: Cabinet Committee; BEDU
 - c. Focus on reducing cost of doing business: power, logistics
 - d. Improvement of access to & Digitization of public services: *Huduma* centres, performance contracting, e-citizen, OSS for Investors
 - e. Gradual digitization of investment facilitation: e-Regulations portal, i-Guide, e-Opportunities
 - f. Responsiveness to investors: *Investor is King* mantra; unprecedented effort on gathering and updating the info investors require; reformed aftercare programme; regular roundtables with investors.

Kenya, Country profile...



Area	582,646 km ²
Population (2017)	49.7 million
GDP (2016)	US\$ 71.58 billion
GDP per capita (2016)	US\$ 1,587
FDI Flows (2016)	US\$ 394 million – UNCTAD
GDP Growth Rates (2016)	5.8% and a projection of 6.1% in 2017 (WB)
Credit rating	Standard & Poor's; B+ (stable) Fitch: B+ (Stable) Moody's: B1 (Stable)
FDI Growth Rate	98.0% in 2013; 92.4% in 2014; 45.3% in 2015 (UNCTAD)
Inflation Rate (2016)	6.3%
Labour force (2016 est)	18.66 million (38% of population)
Currency	1US\$ – KES 100
Total Imports Volume	US\$ 14.3 billion
Total Exports Volume	US\$ 5.8 billion

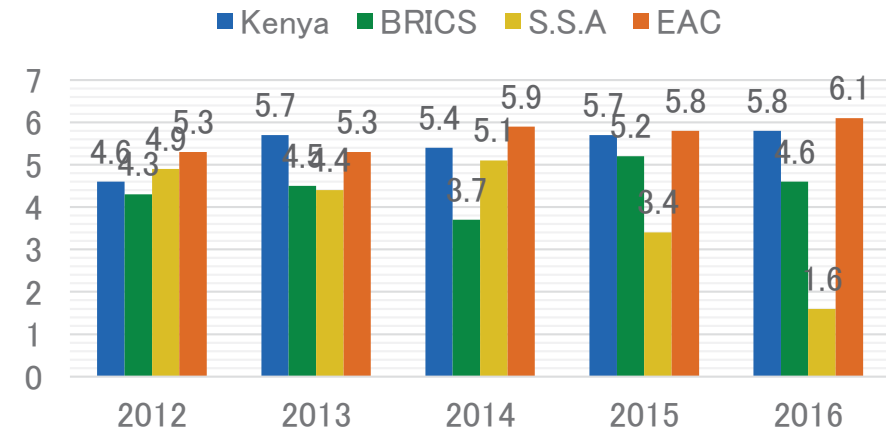
Kenya's economy is multi-sector driven and has experienced positive growth in the recent past

Kenya's economy is the 5th largest in Sub-Saharan Africa.

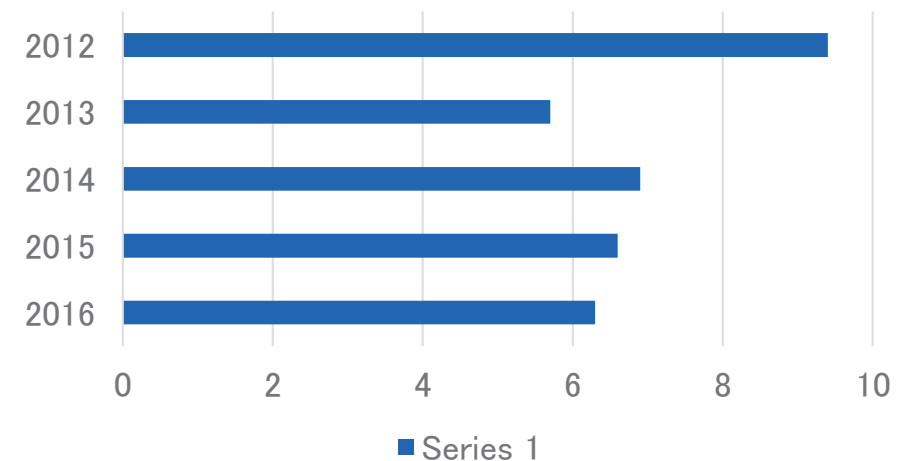
The country's macroeconomic indicators have remained fairly stable with;

- GDP growth rate being consistent within the past 5 years while retaining competitiveness with comparator regional economies.
- Reduction in inflation for the past 5 years has been experienced.

GDP Growth rate

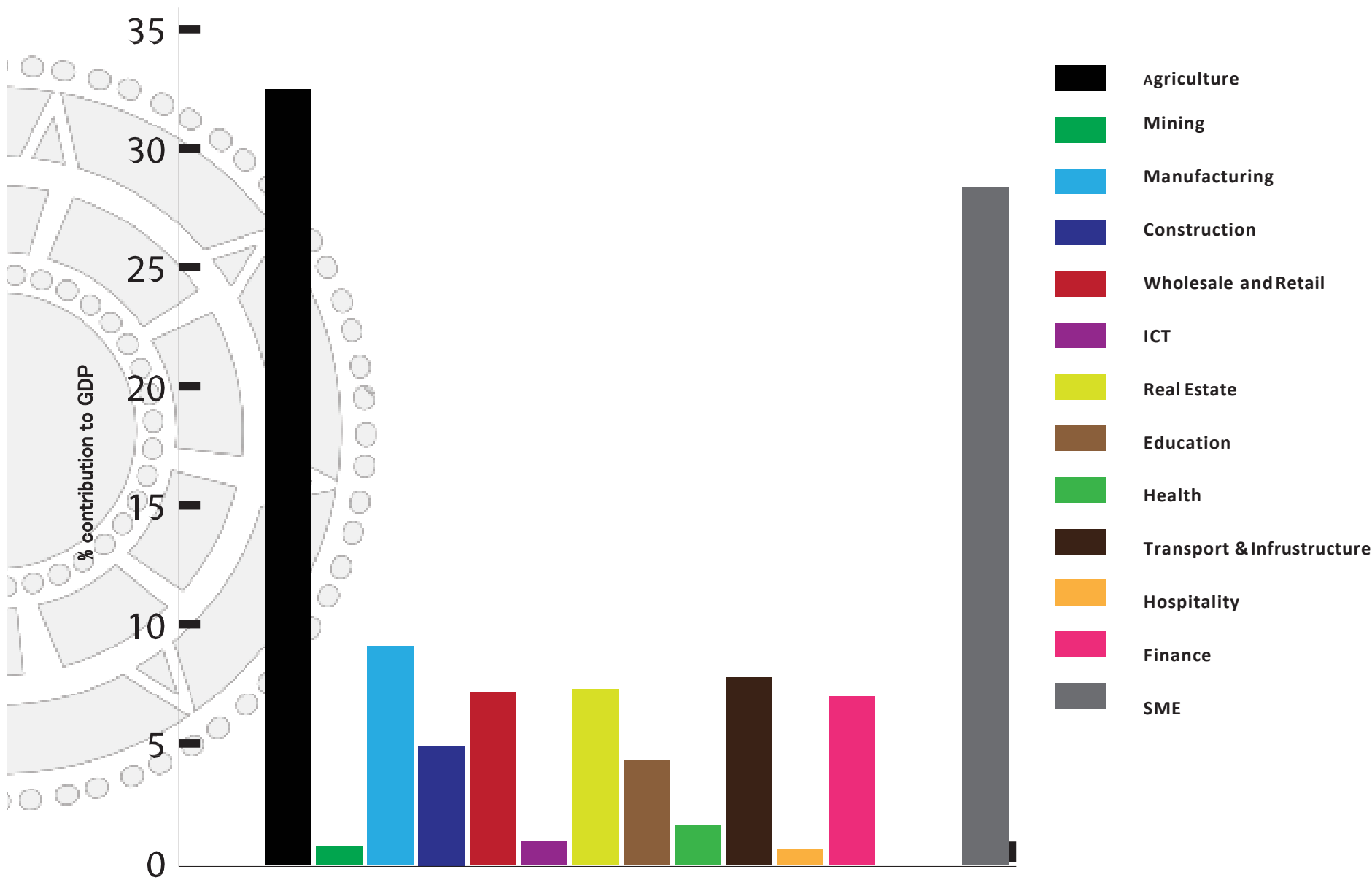


Inflation

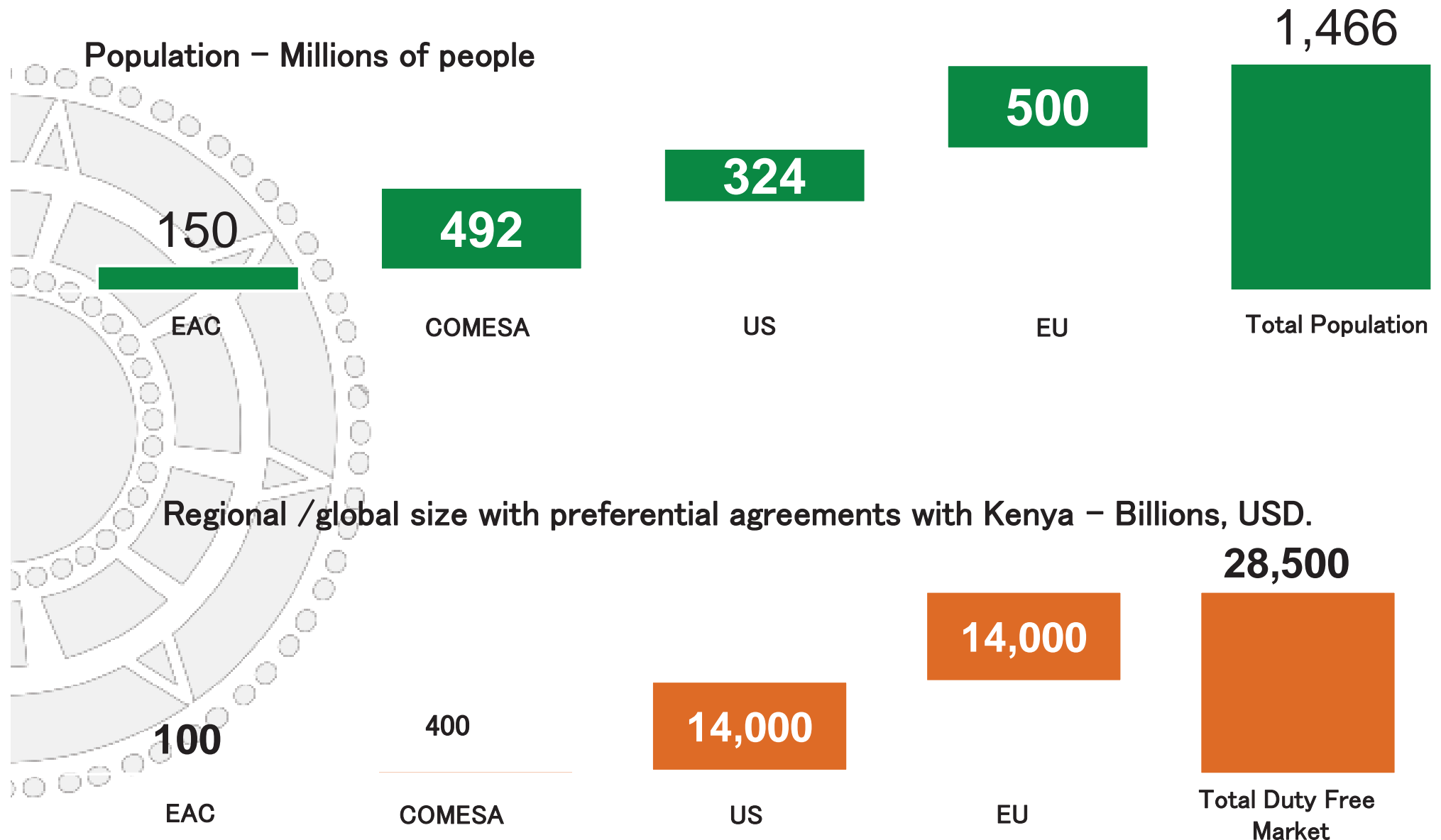


Source: KNBS

Key sectors of the economy feed into the GDP, with the SME sector making a significant contribution (28.5%) to the nationaleconomy



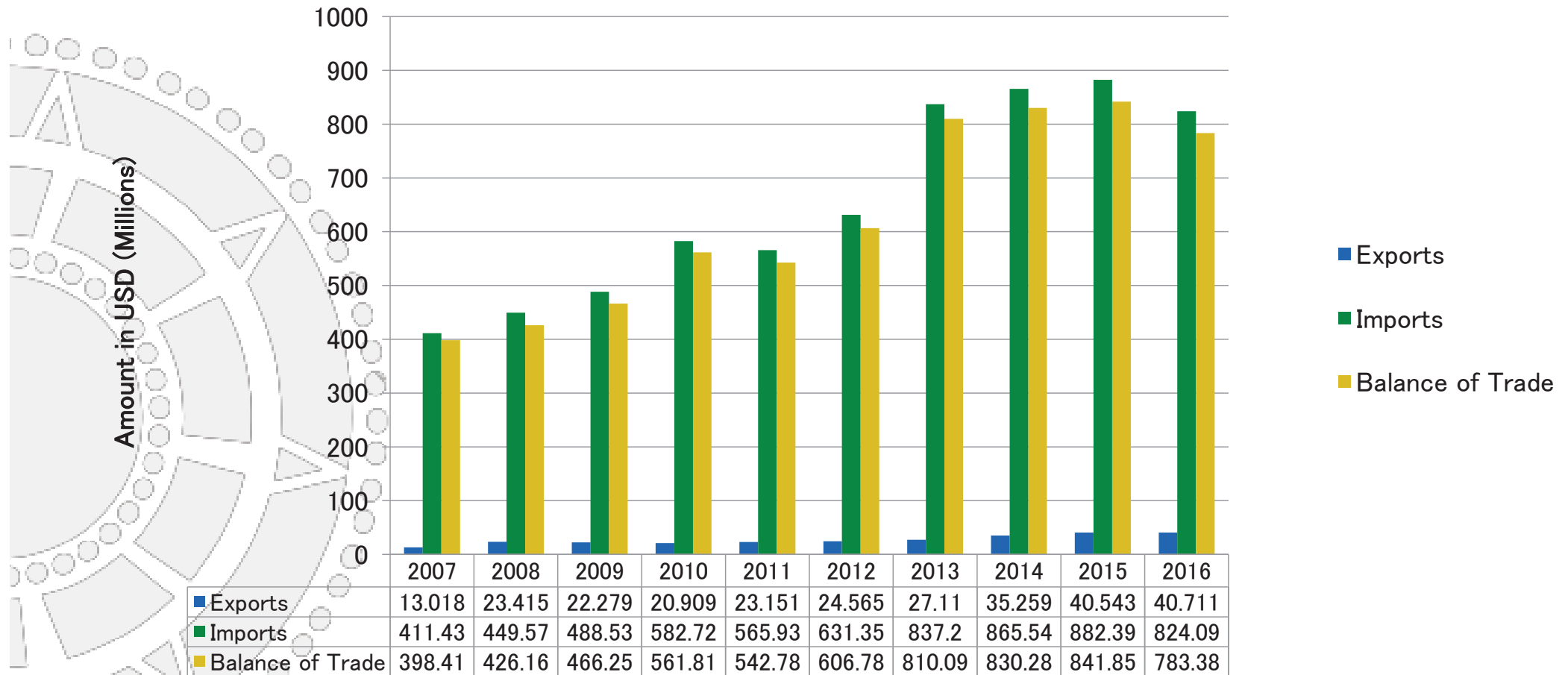
Besides having a sizeable domestic market, Kenya has signed preferential trade agreements with a total population of over 1.4 billion people and market value of \$ 29 trillion



Market Access

- East African Community (EAC) and COMESA and African Caribbean and Pacific (ACP) country signatory to the Cotonou Agreement. Kenya has been a key player in the negotiations and conclusion of EAC–COMESA–SADC tripartite signed 2015 is yet to be ratified and more recently the negotiations between Kenya and Tanzania on the removal of NTBs.
- Kenya is a beneficiary of the African Growth and Opportunities Act (AGOA) which allows for quota free and duty free access to the USA market to 2025.
- Trade agreements with EU for duty free access to EU market, where Kenya will have at least 998 tariff lines eliminated, Uganda 529 and Tanzania 697 (though Tanzania has not yet signed).
- Enhanced trade facilitation with the roll out of the EAC single customs territory, One Stop Border Posts (OBSP) and Electronic Cargo Tracking System (ECTS) for monitoring transit cargo; harmonised standards (37 EAC standards domesticated) and 21 out of 23 NTBs resolved in 2016.

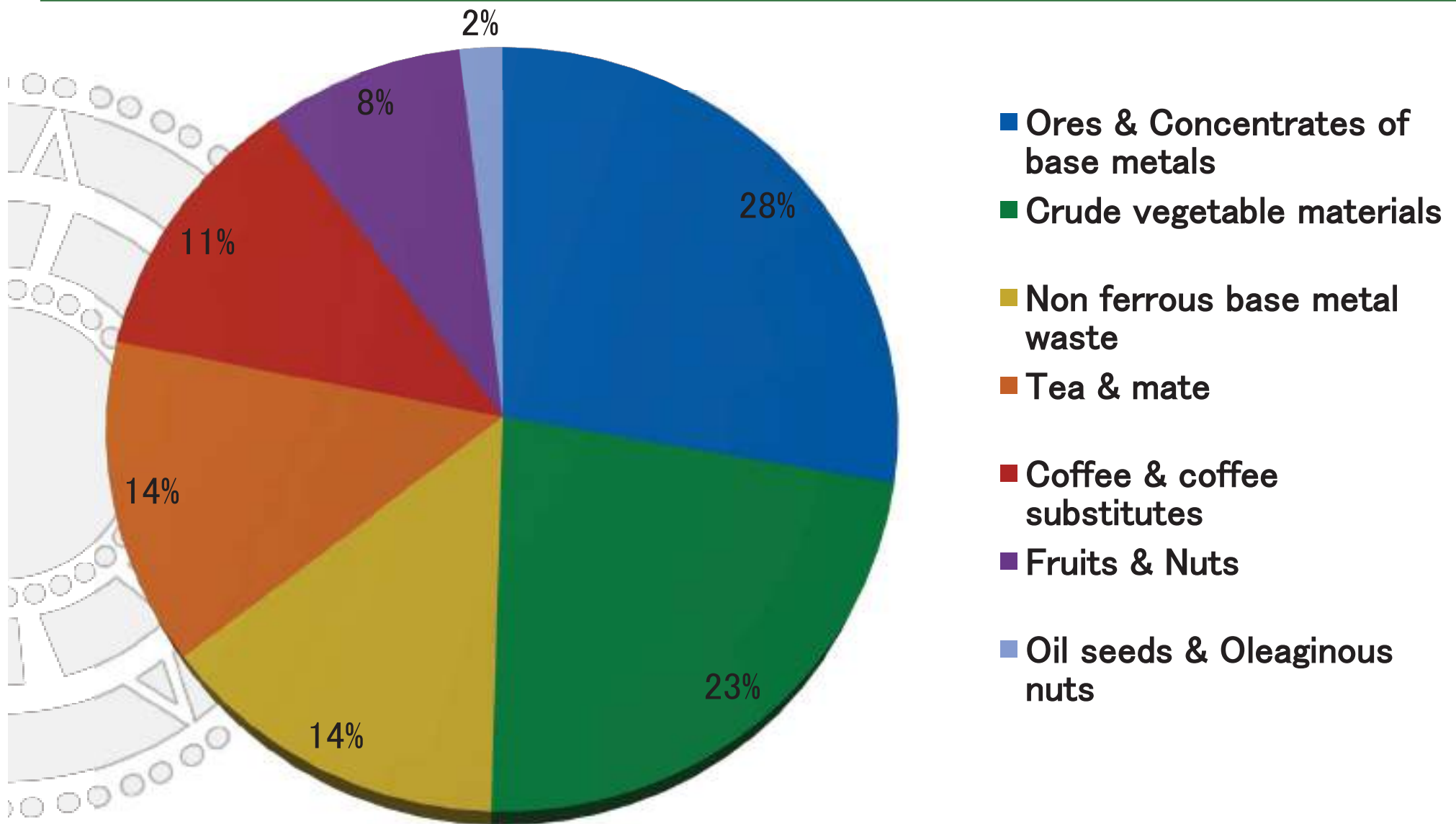
Kenya-Japan Trade Statistics



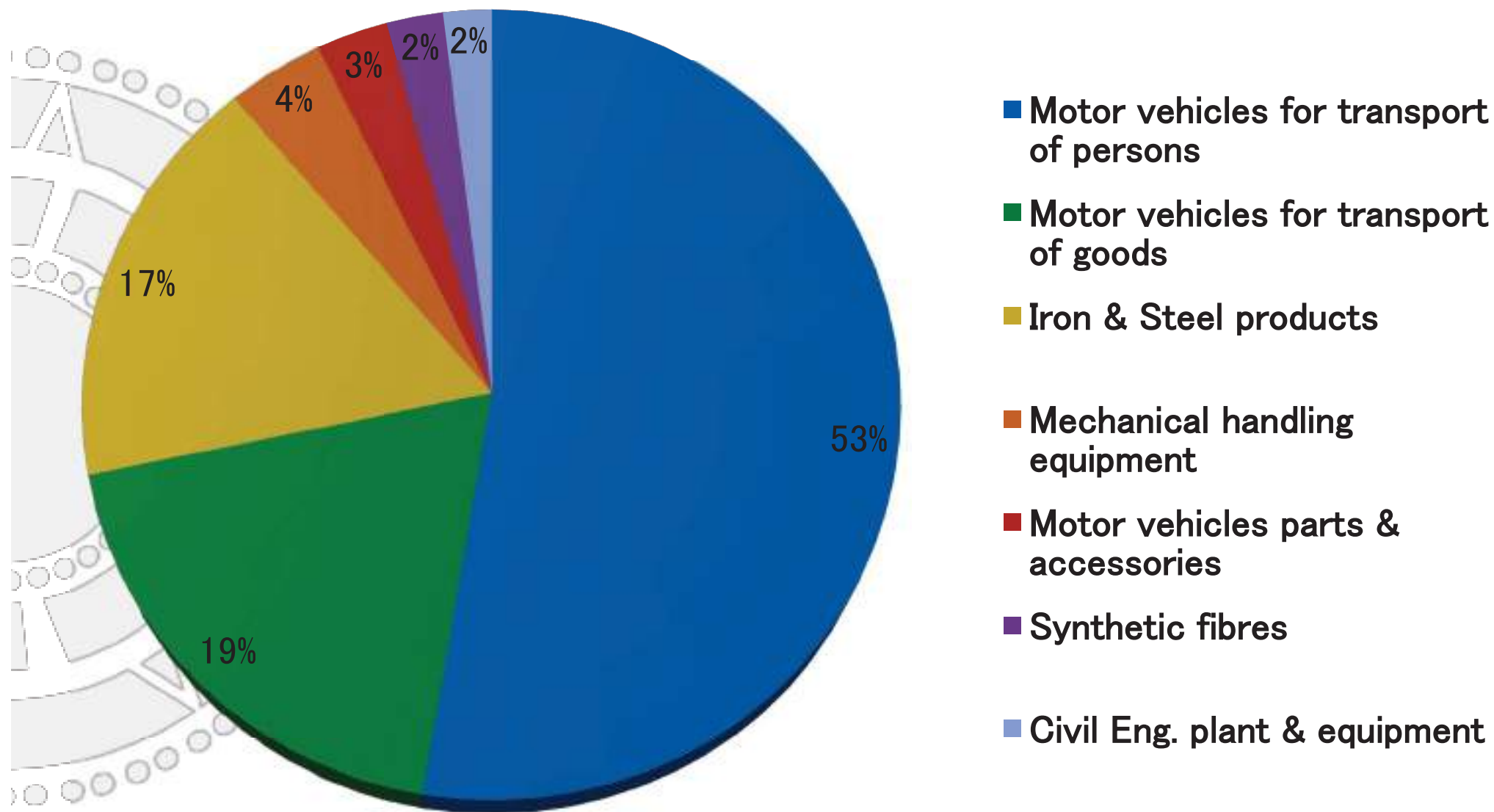
Top Exports: Ores and concentrates of base metals, crude vegetable materials, non ferrous base metal waste and scrap, tea and mate, coffee, fruits and nuts

Top Imports: Motor vehicles, flat rolled products of iron and non alloy steel, mechanical handling equipment, parts and accessories of motor vehicles, synthetic fibers, plant and equipment

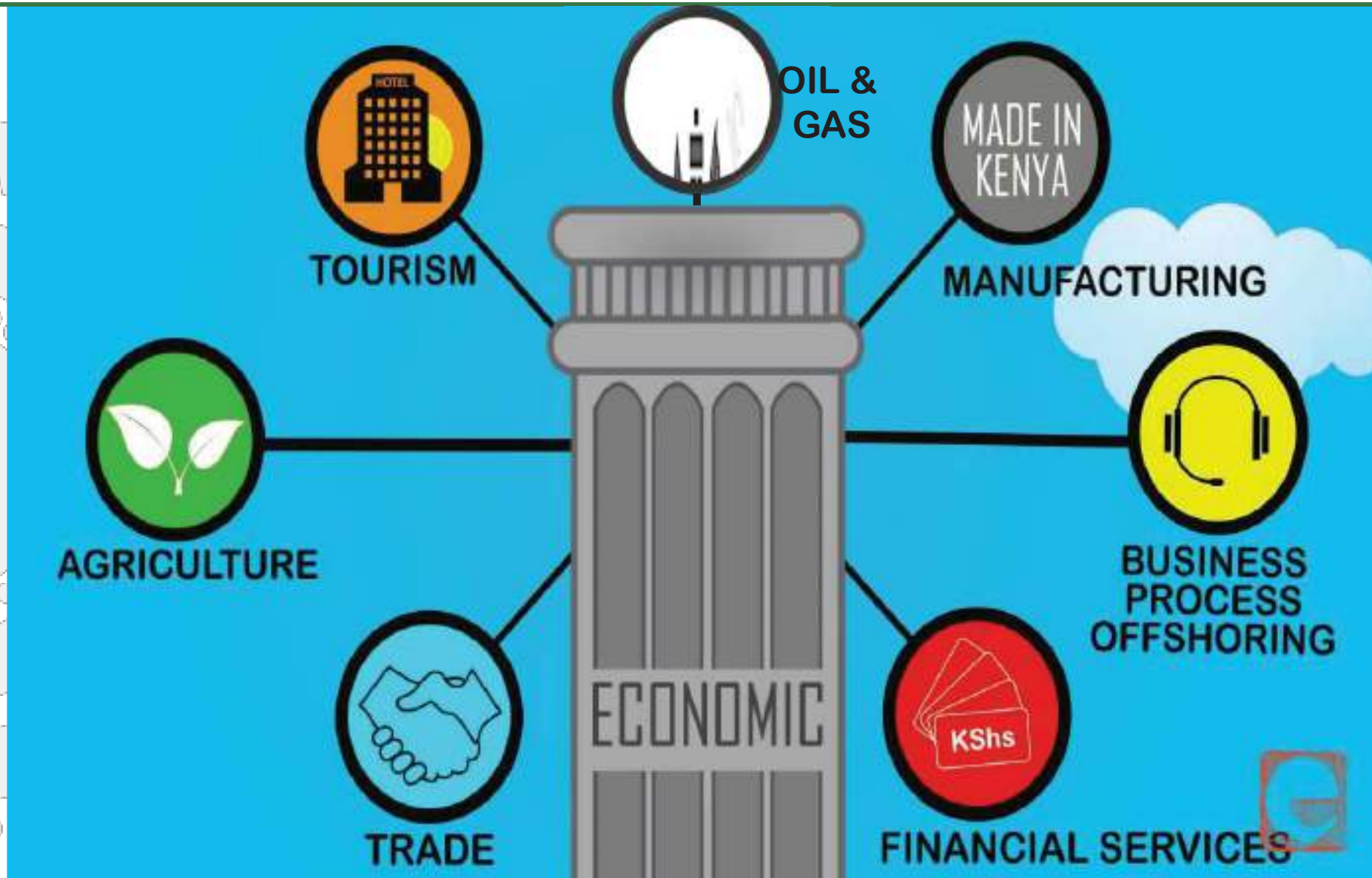
Kenya's Top Exports to Japan



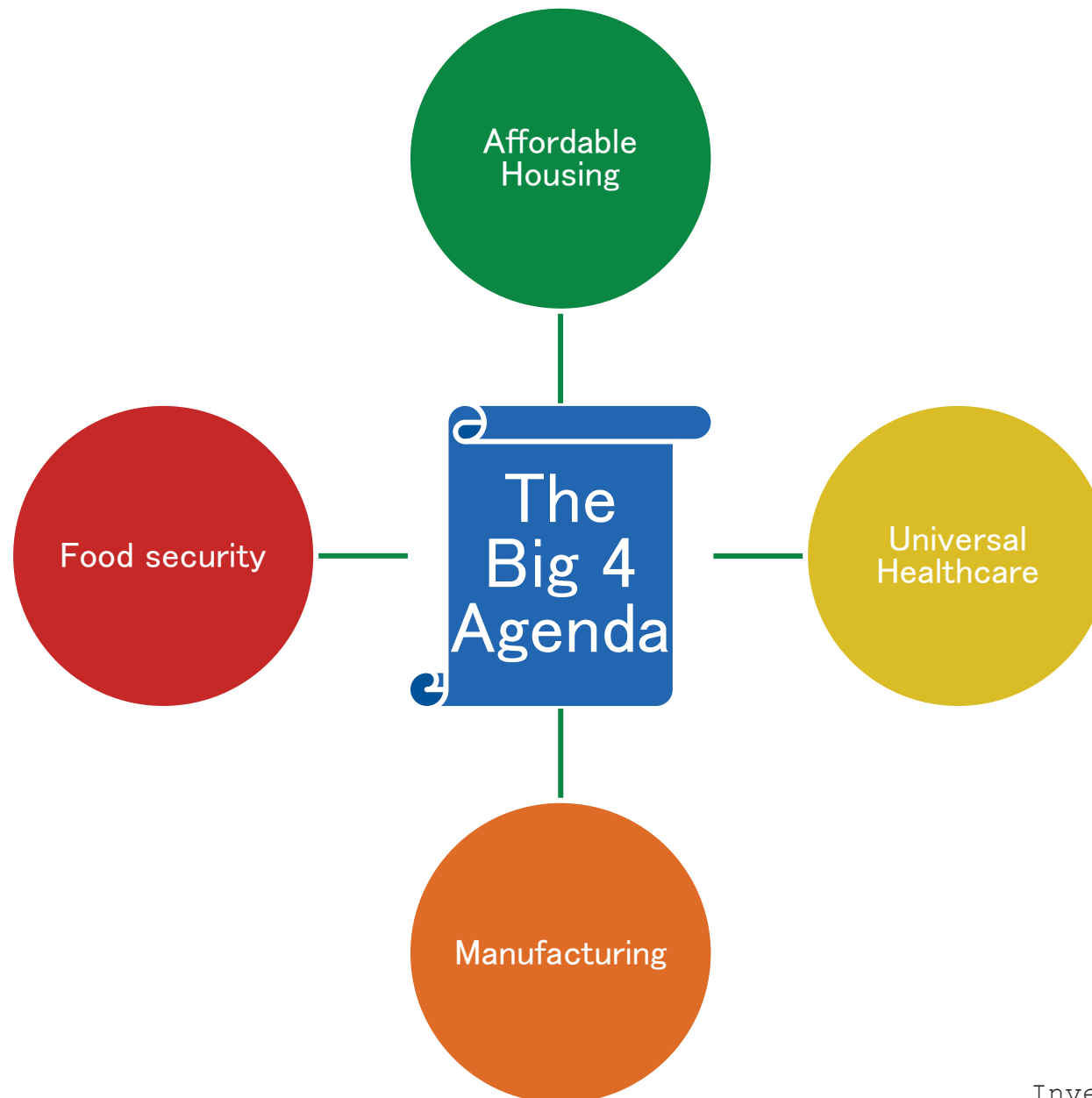
Kenya's Top Imports from Japan



Through vision 2030, Kenya has identified priority sectors that double up as key economic drivers. Through the sectors, key opportunities have been identified.

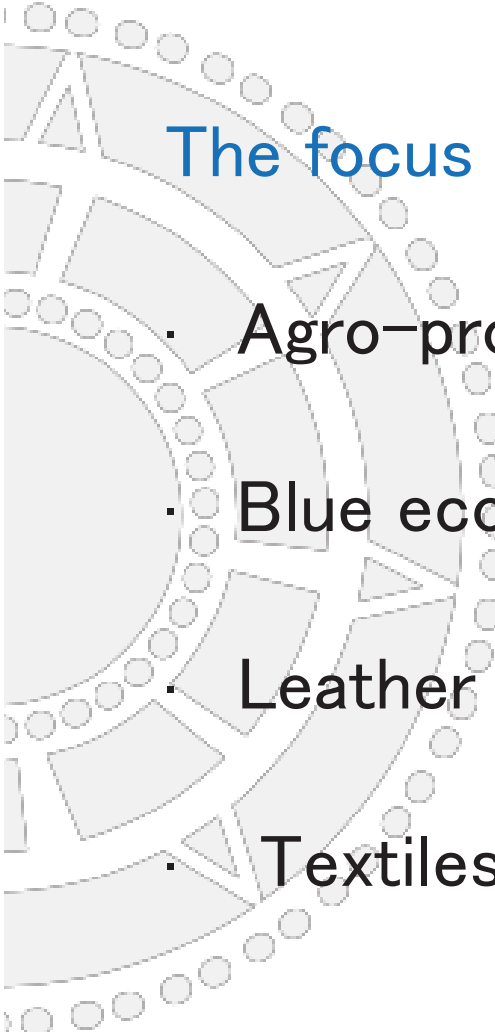


Through vision 2030, Kenya has identified priority sectors that do
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Manufacturing has remained a key sector that is targeted at creating employment and accelerating economic growth

The focus is on 4 key subsectors:

- 
- Agro-processing
 - Blue economy
 - Leather
 - Textiles

Food and nutrition strongly is linked to vibrancy in the Agricultural sector

Opportunities

- Impact investors in various agricultural product value chains.
- Commercialising smallholder and rural farming.
- Value added production.
- Specialisation in various levels of the value chains

Sector Value Chains

Six major sub-sectors: Cash crops, Food crops
Livestock, Fisheries, Forestry, Horticulture

Requirements:

Agriculture production farming and contract farming,
quality seed supply, farm machinery, warehouse facilities
incl. with dryers and cold storage, food packaging,
wholesale and distribution

Value Chains:

Tea



It is currently the leading foreign exchange earner for Kenya, contributing about 20% of the total foreign exchange earnings and creating more than 3 million jobs.

Production locations: Around Mt. Kenya, Aberdares, Kericho, Limuru, Nandi and Kisii Highlands

Major markets: Pakistan, Egypt, United Kingdom, Afghanistan, Yemen and Sudan

Opportunities for investment: Packaging, value addition in making decaffeinated, instant, flavoured and iced teas and marketing tea for export.

Key stakeholders: Tea Board Kenya, Kenya Tea Development Authority, Kenya Tea Growers Association

Coffee



It is Kenya's fourth leading foreign exchange earner. About 70% of it is produced by about 150,000 small scale holders and creates six million jobs.

Production locations: Mt. Kenya region, Aberdares, Kisii, Nyanza, Bungoma and Nakuru, Kericho and the Rwenzori

Major markets: Europe, USA, Canada, UK, India, Saudi Arabia, Japan, Korea

Opportunities for investment: Coffee roasting, blending, processing and packaging of instant coffee and marketing for export. Manufacturing of coal and furniture from coffee husks.

Key stakeholders: Africa Fine Coffees Association FCA, Coffee Board of Kenya

Sorghum



Sorghum is mainly used for consumption with 53% ground into flour for porridge or ugali, 24% is processed to make other commodities (e.g. beer), 12% goes to waste, 10% for making animal feeds and 1% for planting

Production locations: Kitui, Makueni, Machakos, Meru and Tharaka Nithi

Major markets: Kenya is not a major exporter of sorghum and mostly imports from

Opportunities for investment: Production of sugars for industrial purposes , value addition sorghum flour

Key stakeholders: Sorghum Value-Chain Development Consortium, Cereal Growers Association

Value Chains:

Rice



It is the third most important staple food in Kenya after maize and wheat. The annual rice production is estimated at about 52,000MT though annual national rice consumption is estimated at 120,000 MT.

Production locations: Mwea irrigation scheme; Bunyala irrigation scheme); Tana delta and Msabweni, Ahero, West Kano, Migori and Kuria regions

Major markets: Kenya imports from the EAC and COMESA regions and Egypt

Opportunities for investment: high yielding and disease resistant varieties, expansion of area under rice through improving and expanding irrigation infrastructure, generating by-products including husk-based charcoal, rice bran and poultry feed

Key stakeholders: National Irrigation Board,

Potatoes



Potato crop is the second most grown staple food in Kenya after maize by over 800,000 smallholder farmers and production valued at KES 50 billion per annum. The value chain directly and indirectly employs 2.5 million people.

Production locations: Bomet, Bungoma, Elgeiyo-Marakwet, Kiambu, Meru, Nakuru, Narok, Nyandarua, Nyeri, Taita-Taveta, Trans-Nzoia, Uasin Gishu and West Pokot.

Major Markets: xxxxxxxxxxxx

Opportunities for investment: Optimizing production and processing of potatoes into value added products like crisps, wine, starch etc.

Key stakeholders: National Potato Council

Cassava



Almost all cassava produced in Kenya is consumed locally and some small amount is made into starch.

Production locations: xxxxxxxxxxxx

Major Markets: overall demand, local consumption, export markets

Opportunities for investment: Process and dry Cassava for fortification into flour and animal feeds, production of sugar and starch and as a substrate for biofuel production

Key stakeholders: xxxxxxxx

Value Chains:

Nuts



Macadamia and Cashew nuts are the mainly produced nuts. Cashew nut farming in Kenya is a smallholder activity which provides a livelihood of sorts to 60,000 farmers. Kenya is among the top 5 largest macadamia producer and exporter in the world.

Production locations: Eastern, Central and Rift valley provinces Kilifi

Major Markets: The nuts are exported to North America, Japan, Middle East, Europe and Australia.

Opportunities for investment: Value addition

Key stakeholders: Nut Processors Association of Kenya

Fruits



Mango and Passion are the main fruit crops grown in Kenya. Their production has grown due to high demand for fruit juice processing.

Production locations: Makueni, Machakos, Nakuru, Siaya, Taita Taveta and Tana River

Major Markets: Exports mainly to Middle East

Opportunities for investment: Processing into juice and concentrate manufacturing for export, dried fruits

Key organization: Horticultural Crops Development Authority

Flowers



Status: Kenya is the lead exporter of cut flowers to the European Union (EU) with a market share of about 38%

Production locations: Around Lake Naivasha, Mt. Kenya, Nairobi, Thika, Kiambu, Athi River, Kitale, Nakuru, Kericho, Nyandarua, Trans Nzoia, Uasin Gichu and Eastern Kenya

Major Markets: European Union

Opportunities for investment: Construction of pre-cooling and cold storage facilities including production of packaging materials, export of cut flowers to US under AGOA

Key stakeholders:, Kenya Flower Council

Value Chains:

Beef



Kenya has an estimated population of 9.7 million beef cattle from which beef and beef products are produced. Beef and beef products exported from Kenya include chilled beef in bone and boneless steak, value added beef and products such as sausages, etc.

Production locations: Highland regions

Markets: The major markets for the beef products include the regional markets (Uganda and Tanzania), COMESA (Democratic republic of Congo, Mauritius, Madagascar, etc) and United Arab Emirates among other markets.

Opportunities for investment: Onsite processing of animals, High quality meat processing, end to end leather product processing – good for AGOA market and local / region

Key stakeholders: Kenya Meat Commission

Dairy



Status: Kenya has an estimated population of 3.3 million pure breed dairy animals. The milk industry is dominated by the small scale producers who account for 80% of the dairy industry's output. Dairy farming contributes around 3.5 % of the total GDP

Production locations: Kenyan highlands

Markets: Kenya' export mainly to the other EAC countries as it is the largest dairy producer in the region as well as Indian Ocean islands, Egypt and the Middle East


Opportunities for investment: Need for milk cooling and bulking facilities, need to reduce overdependence on rain-fed fodder, processing into powder and other long life products.

Key stakeholders : Kenya Dairy Board

Strategies

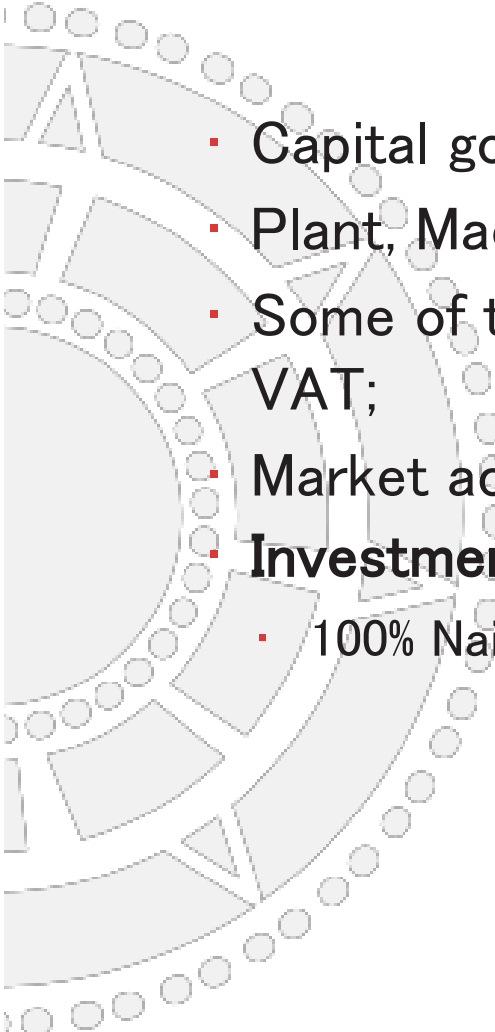
- Launch a food processing hub in Mombasa to process imported agro-based products (e.g., wheat, palm oil, rice).
- Launch agro-processing zones (e.g., Kisumu, Meru, Galana, Nakuru, Kwale) to process local commodities (e.g., avocado, mango, cassava, peas, passion fruit, potatoes).
- Establish a fishing port and fish processing zone in Lamu for local and export markets.

Processing Plants:

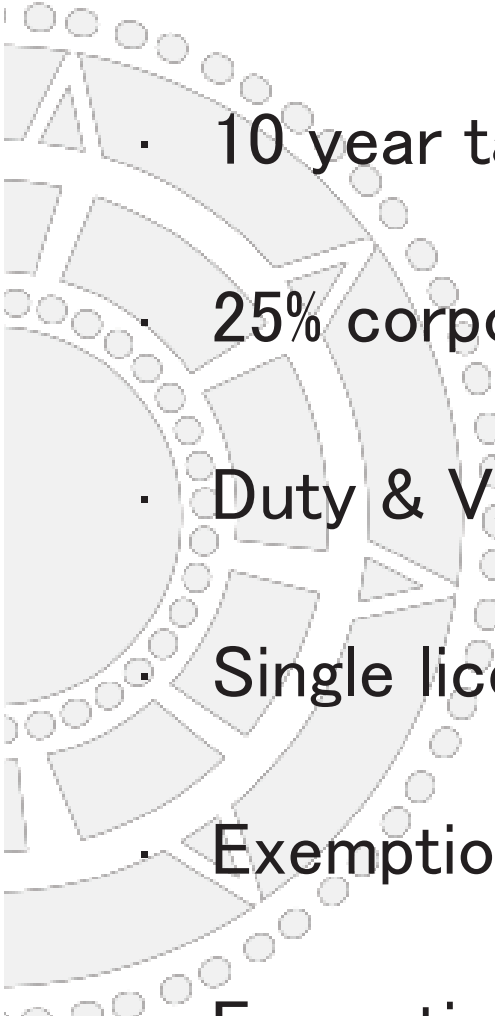


Opportunities to create processing hubs which will in turn import raw commodities in bulk for processing and export consumer goods to serve the growing regional market, given the strategic location within the region.

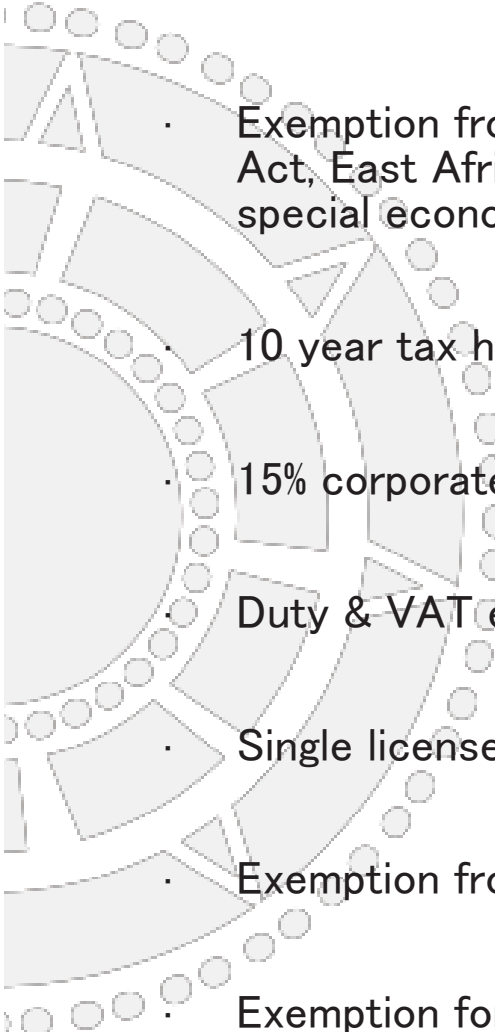
INCENTIVES

- 
- Capital goods and raw materials are zero-rated;
 - Plant, Machinery and equipment are duty exempt;
 - Some of the plant, machinery and equipment are exempt from VAT;
 - Market access in COMESA and EAC markets with no taxes;
 - **Investment Allowance:**
 - 100% Nairobi, Mombasa and Kisumu cities;

EPZ Scheme:

- 
- 10 year tax holiday;
 - 25% corporate tax for another 10 years;
 - Duty & VAT exemption;
 - Single license;
 - Exemption from stamp duty; and
 - Exemption for withholding tax.

Special Economic Zones (SEZ)..

- 
- Exemption from all taxes and duties payable under the Excise Duty Act, Income Tax Act, East African Community Customs Act and the Value Added Tax Act, on all special economic zone transactions
 - 10 year tax holiday;
 - 15% corporate tax for another 10 years;
 - Duty & VAT exemption;
 - Single license;
 - Exemption from stamp duty; and
 - Exemption for withholding tax.

Kenya remains the destination of choice for investment in Africa.



"Kenya has emerged as one of Africa's frontier economies"

IMF MD-
Ms. C. Lagarde



"If you are going to do business in Africa, Kenya is almost a requirement."

Former CCA President-
Mr. Stephen Hayes



"I have been everywhere and Kenya is my favourite place."

Virgin Atlantic CEO –
Mr. Richard Branson

Investor Support Institutions.....



Institution	Mandate	Contact
Kenya Investment Authority	Investment Promotion and Facilitation	info@investmentkenya.com
Export Processing Zones Authority	Promote and facilitate export oriented investments	info@epzakenya.com
LAPSSET	Coordinate and manage the implementation of transport corridor	info@lapsset.go.ke
KOTDA	Construct and Setup KOTDA	konza@konzacity.go.ke
Kenya Revenue Authority	Promote efficient tax administration	callcenter@kra.go.ke
eCitizen	Providing public services to citizens electronically	www.accounts.ecitizen.go.ke
Export Promotion Council	Developing and promoting Kenya's exports	chiefexe@epc.or.ke
Special Economic Zones Authority	Development and management of enabling environment for global and local investment.	ps@industrialization.go.ke

Welcome to Kenya and be part of the success



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DigiFarm

'Making farmers more wealthier'

June 2018

