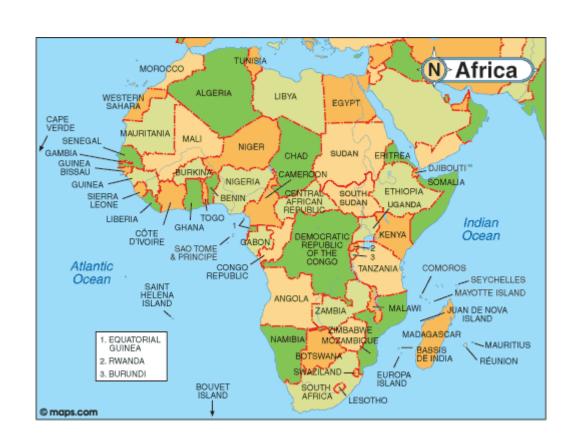
HUMAN GENE EDITING-A VIEW FROM NIGERIA

FOLA ESAN
NIGERIAN ACADEMY OF SCIENCE

AFRICA



NIGERIA



NIGERIAN POPULATION

- 170 MILLIONS, MANY NATIONAL GROUPS AND TONGUES
- HIGH MATERNAL AND CHILD MORTALITY
- ABOUT 25% HETEROZYGOUS FOR SICKLE GENE
- 'NIGERIANS ARE A DEEPLY RELIGIOUS PEOPLE'churches, mosques, traditionalists, others. Are gullible and poor, have low scientific culture.

NIGERIAN ACADEMY OF SCIENCE

www.nas.org.ng

- INAUGURATED IN 1977
- MERIT BASED; FELLOWS NGA 200, FOR 4
- PROVIDES POLICY ADVICE TO GOVERNMENT
- COLLABORATES WITH OTHER ORGANIZATIONS
- BENEFITTED FROM ASADI PROGRAM (USNAS/GATES)
- CHARTER BILL YET TO BE PASSED

NIGERIAN ACADEMY OF SCIENCE

- DRAFT OF NAS POLICY STATEMENT ON GENETICALLY MODIFIED ORGANISMS
- Policy Brief [No.----]
- Genetically Modified Organisms
- A policy brief by the Nigerian Academy of Science
- SUMMARY
- SUBMITTED 2015*
- *GMO BILL PASSED

NIGERIAN RESEARCH

- FUNDED PREDOMINANTLY BY GOVERNMENTS
- UNIVERSITIES AND RESEARCH INSTITUTES
- LOW PRIVATE SECTOR R&D
- FUNDS: (% OF GDP) EDUCATION 0.5 (2CHN), R&D 0.6(15UGA)
- OUTPUT: JOURNAL ARTICLES 462(74,819CHN), PATENTS 49(415,828CHN)

BIOTECHNOLOGY ACTIVITIES

- NAtional Biotechnology Development Agency
- (NABDA)
- established 2001, www.nabda.gov.ng
- promotion, coordination, and development of cutting edge biotechnology research & development processes and products for the socioeconomic wellbeing of the nation
- Food security, job/wealth creation, affordable health care delivery and sustainable environment

BIOTECHNOLOGY ACTIVITIES

NATIONAL BIOSAFETY AGENCY LAW

One of large number of bills passed into law at one sitting in closing weeks of a government

NAS informally consulted but parliament acted fast

ENFORCEMENT DIFFICULTIES EXPECTED

GENE EDITING RESEARCH IS MINIMAL

LARGEST POOL OF SICKLE CELL ANAEMIA PATIENTS

XENOTRANSPLATATION 'PRACTICE' BY NON-SCIENTIFIC 'PRACTITIONERS'

THE WAY FORWARD

- MAJOR REORGANIZATION
- APPROPRIATE FUNDING
- FORGE LOCAL AND INTERNATIONAL PARTNERSHIPS

P-R-A-Y!!!!

NATIONAL FLAG

