The Dynamics of Higher Education Policy Evolution and Implications for the Reform Agenda in Kenya

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State Department for University Education & Research
Ministry of Education

28th – 29th November 2019
Presentation Layout

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ii. Issues in Higher Education
iii. Financing of higher Education
iv. Trends in expenditure in universities
v. Higher Education at crossroads
vi. Reform Agenda in Higher Education in Kenya
vii. Scenario in Some Kenyan Universities
viii. Research and Development vs Academics and Numbers
ix. Verdict/Conclusion/Way Forward
Description of higher education in Kenya

• Constitution of Kenya 2010
• Universities Act 2012
• Science and Technology Act 2008
• Public Private Partnerships Act 2013
• CESA 2025
• Agenda 63
• SDG 2030
Issues in higher education

- Idle capacity and rising overhead costs
Issues in higher education contd.

• Universities have shifted focus away from Science, technology, engineering, and mathematics (STEM)-based courses that are touted as key drivers of growth in industries, engineering and innovation.

• Faculty staff components and the qualifications of faculty have not kept pace with expanded post-secondary enrolment, undermining the quality of education delivered.

• As expected, the distribution of academic staff in the respective programs is influenced by enrollments in the programs.

• Universities are highly dependent on government funding and fees from students.
Financing

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
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<th>2016</th>
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<tr>
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<td>Others</td>
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Sources of funding for public universities in KES

- GOK
- Fees
- Grants
- Others
## Financing

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<thead>
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<th>Sources of Funding</th>
<th>2014</th>
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<tr>
<td>GOK</td>
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<tr>
<td>Fees</td>
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<tr>
<td>Grants</td>
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<td>Others</td>
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Sources of funding for private universities in KES
## Trends in expenditure in Public Universities

<table>
<thead>
<tr>
<th>Type of Grant</th>
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<th>2014/2015</th>
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<tr>
<td>Recurrent expenditure</td>
<td>52,233</td>
<td>52,856</td>
<td>55,840</td>
<td>56,392</td>
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<td>of which:</td>
<td></td>
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<tr>
<td>Recurrent grants</td>
<td>35,556</td>
<td>36,174</td>
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<td>AIA</td>
<td>16,677</td>
<td>16,683</td>
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<td>Capital Grants</td>
<td>5,009</td>
<td>8,412</td>
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<td>of which:</td>
<td></td>
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<tr>
<td>NET capital</td>
<td>3,509</td>
<td>5,201</td>
<td>4,175</td>
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<td>Loans/ Grants</td>
<td>1,500</td>
<td>3,210</td>
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<td>Total expenditure</td>
<td>57,241</td>
<td>61,268</td>
<td>62,976</td>
<td>67,871</td>
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<td>Recurrent grants (percent)</td>
<td>91</td>
<td>86</td>
<td>89</td>
<td>83</td>
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<td>Capital Grants (percent)</td>
<td>9</td>
<td>14</td>
<td>11</td>
<td>17</td>
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Higher Education at Crossroads

Crisis or Opportunity???
Higher education and Employment

• “Higher education not only changes the lives of individuals who receive degrees and diplomas, but also the lives of those around them. Improved economic opportunities and incomes for individuals with higher education can support entire families. A critical mass of higher education opportunities can also act as a “pull factor” for students in lower grades, encouraging them to stay in school.” (Lowe, 2019)

• Of Africa’s nearly 420 million youth aged 15-35,
  • 1/3 are unemployed,
  • 1/3 are vulnerably employed, and
  • only one in six are in wage employment (AfDB, 2016).
  • 61% of employed men and 74% of employed women work in the informal sector (WB, 2016).
  • 23% of the working poor in sub-Saharan Africa = Young people (Lowe, 2019)
Education Reforms?

• Human Resource Audit - Right-sizing and down-sizing of staff to ensure proper staffing norms

• Rationalization, Specialization, Collaboration, dual degree programmes

• Freeze on the establishment of new universities

• Innovative Financing of higher education

• Triple Helix Approach; partnerships with Academia, Industry, Government - (Citizens, CSO, NGOs, Corporates, Philanthropy, Private sector) *Co-creation of knowledge for Impact!*

• Governance and Accountability

• Collaborations; Alumnae, Diaspora, Professors Emeritus,
Nobel Prize Winners 2019


“for their experimental approach to alleviating global poverty”

The Abdul Latif Jameel Poverty Action Lab is a global research center working to reduce poverty by ensuring that policy is informed by scientific evidence.
Scenario in Some Kenyan Universities

- African Centers of Excellence; JOUST, Moi, Egerton (WB)
- Strathmore University & @iLabAfrica – Data and AI
- JKUAT & PAUSTI, JICA
- UoN & KEMRI/CDC
- Higher Education Science and Technology to enhance quality-(HEST) Project (AfDB)
- KAIST & South Korea KAIST
- KAIST Model
KAIST MODEL:

Research Planning: Three Key Considerations

1. Having to build **basic** knowledge bases while focusing on **applied** research for industrial applications
2. Having to address **current** demands while preparing for **future** needs
3. Having to generate **economic** prosperity while meeting **social** needs and ensuring sustainability
01

**Current Conditions**

**Science/Technology/Innovation**

- Significant progress in technological innovations in Kenya
  - Patents applications by residents and grants for residents increasing recently!
  - Innovation ranking going up from the 99<sup>th</sup> to the 78<sup>th</sup> just over five years

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**Graphs:**

- **Patent Applications**
  - Resident
  - Non-Resident
  - Abroad
  - Source: WIPO statistics database; last updated: 12/2018

- **Patent Grants**
  - Resident
  - Non-Resident
  - Abroad
  - Source: WIPO statistics database; last updated: 12/2018

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**Kenya - Global Innovation Index**

- Innovation Ranking
- Innovation Index

- **99<sup>th</sup>**
- **78<sup>th</sup>**

- **Global Innovation Index**

- **2013:** 30.28
- **2014:** 31.07
- **2015:** 31.07
- **2016:** 31.07
- **2017:** 31.07
- **2018:** 31.07

Source: WIPO statistics database; last updated: 12/2018
Major Components
Curriculum Design

Six programs identified with qualitative and quantitative analyses and discussions with Kenyan side in F/S

**Electrical/Electronics Engineering**
To train experts, professionals and scholars of solid understanding and skills contributing to industrial growth with advances in the electrical/electronics fields

**ICT Engineering**
To produce innovators and entrepreneurs with advanced skills and knowledge of ICT in the utilization ICT to generate prosperity and solve local/global problems

**Mechanical Engineering**
To generate leaders in mechanical engineering and related industries with advanced knowledge of mechanical systems and capacity for collaborative innovations

**Civil Engineering**
To equip future civil engineers with excellent problem solving skills and the understanding of design/construction/maintenance of human-made structures

**Chemical Engineering**
To educate future chemical engineers with fundamental understanding of chemicals and materials able to handle large-scale processes for productivity increases

**Agricultural Biotechnology**
To nurture future leaders of bio-industry for sustainable rural development by providing advanced education in agriculture and life sciences

Curriculum Design Philosophy
<table>
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Conclusion!
References

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• KAIST Report (2019)


Thank you