WACREN Conference 2018

How NREN can assist universities in developing and emerging countries to cope with the growing student number and to qualify lecturers

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Overview

- Background

- Methodology

- Discussion

- Conclusion and Recommendation

Background

Background

➢ In developing and emerging countries the higher education sector is growing very fast.

➢ View to the demographic statistics student numbers in undergraduate programmes will double or triple in the next decades.

➢ Tight budgets in all countries limit universities' activities to keep path.

➢ Universities will respond with additional restrictions for enrollment that student numbers stay manageable.

➢ Urgent and inexpensive solutions are requested from politicians, economy and universities in order to offer talented students from all social classes access to higher education.

Research Question

The research question will try to proof whether NRENs might have the key for a / the solution :

What kind of activities NRENs could take over as experts for digitization to contribute to improve the current and future challenges of universities in emerging and developing countries?
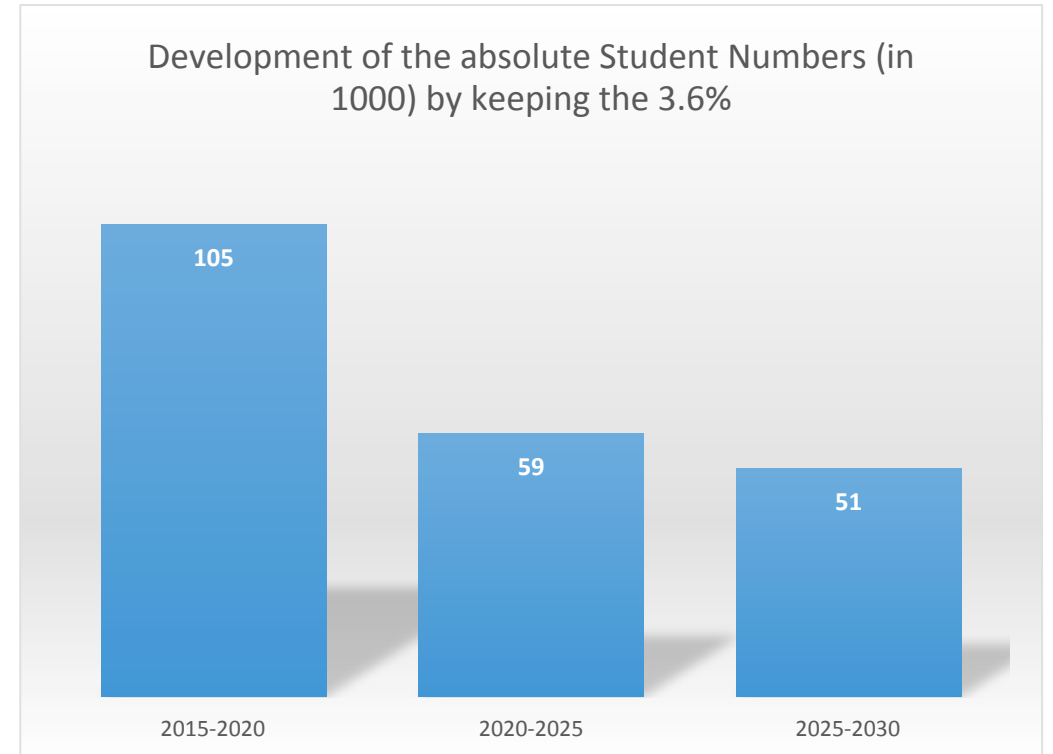
Methodology

This research has been elaborated as a discussion paper based on observations in Ethiopia and abroad in order to bring stakeholders together, to work on a model for the Ethiopian situation and to invite stakeholders from other African countries to share their experiences.

Findings

Students

778,766 students in the undergraduate programmes and equals to 3.6 % within the age group 15 – 24.

(in 2014: 21,413,000 = 20% of Ethiopia's population)

Development of the absolute Student Numbers (in 1000) by keeping the 3.6%

105	59	51
2015-2020	2020-2025	2025-2030

Source: processed data from the Ethiopia Data Portal

Students

Increase of Students in absolute Numbers (in 1000) based on Population Growth in the Age Group 15 - 24 and increase of Access to Higher Education			
Access to HE	**Periods**		
	2015-2020	**2020-2025**	**2025-2030**
3.6%	105	59	51
4.1%	120	67	58
4.6%	134	75	65
5.1%	149	83	72
5.6%	164	91	79

Source: processed data from the Ethiopia Data Portal and the Education Statistics Annual Abstract 2008 E.C.

Increase of Students in absolute Numbers (in 1000) based on Populations Growth and increase of Access to Higher Education
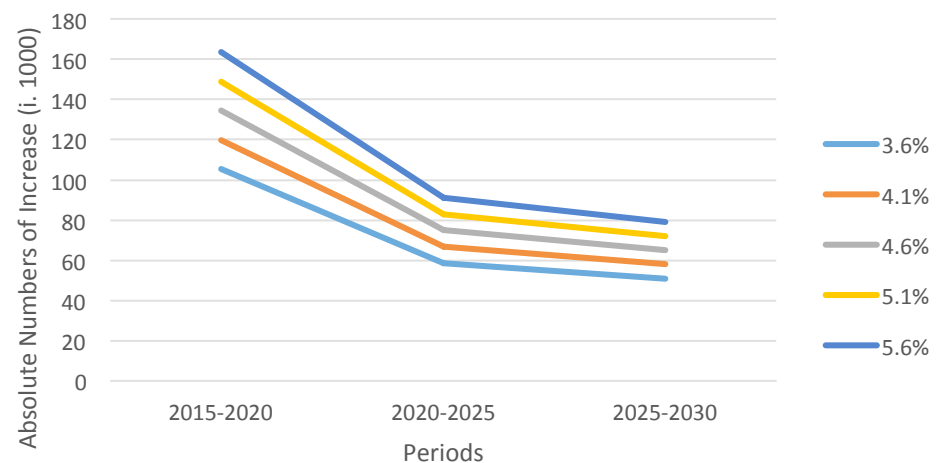
Source: processed data from the Ethiopia Data Portal and the Education Statistics Annual Abstract 2008 E.C.

Lecturers

- **20.1** students/lecturer ratio: indicated in the Education Statistics Annual Abstract 2008 E.C. for the regular undergraduate programme

- **23.2** students/lecturer ratio: full-time lecturers with a Master's Degree in the regular undergraduate programme in government and non-government universities

- **28.6** students/lecturer ratio: undergraduate and graduate students in all study programmes (830,287 per academic year 2015/16).

- **42.6** students/lecturer ratio: full-time lecturers with a Master's Degree in all programmes

37% of the lecturers have a lower degree than a Master's Degree.

EthERNet

Services provided to universities:

- Provide high-speed internet to Ethiopian universities

- Connect universities at national level

- Connect universities at international level

- Host institutional repositories for universities not able to do so

- Host the national repository for universities and to provide the services to keep the repositories up-dated

- Provide cloud space

- Provide technical solutions for national digital university networks

Discussion

Discussion

- **In 2002** there were **two fully fledged universities** and in **2018 there are 45 universities.**

- **Student numbers** increased **from** a few **10,000s to more than 830,000**

- **Many newly built universities have already reached their limits.**

- This call for efficiency might include **class room occupation plans** and **joint use of resources** but also the **efficient use of digital means** to improve the quality of individual lectures such as

- **Joint digital class rooms** with partner universities

- **Tandem lectures on virtual bases** with national or international lecturers from partner universities

- **The use of Massive Open Online Course (MOOC) sessions** as an integrated part of the course delivery.

Discussion

- **Universities have to make considerable changes** - in the `curriculums`, the **subjects** offered and in the `methodology`, how knowledge will be delivered.

- NREN might be the most suitable organisation to assist universities in

  - **introducing, monitoring and evaluating the quality standards** of the digital approach in classrooms,

  - the **digital classroom**

  - **international cooperation for delivering digital courses** or sessions of digital courses

Discussion

- Services NREN could offer for universities:

  - Providing **suitable bandwidth** for joint classrooms

  - Elaborating **training material** for researchers, lecturers, librarians and students to enable them to use a digital workplace most efficiently

  - Acting as broker for/harvester of **virtual classrooms** available

  - Acting as broker for/harvester of **MOOCs** available

NRENs from a connectivity provider to a service provider for universities and their end-users

Conclusion and Recommendation

SWOT Analysis for NREN as University Partner

Strengths	Weaknesses
- Internationalisation - Organisation - Research network with universities - Services	- Administration - Business like approach - Commitment of universities
Opportunities	**Threats**
- Jump on the bandwagon and leapfrog towards modern universities - Necessities - Demand for digital literate applicants from the labour market	- Economic and political interests from abroad - Technical requirements - Lecturers qualification

Recommendation

- **Turn the weaknesses into challenges** and to overcome the threats by **introducing a policy framework** that orchestrates the efforts towards digitization

- **Intensify the cooperation with the NREN** from Open Access, the national repository, the work with 'big data', the digital classroom approaches and to lecturers' delivery performance in the digital classroom, brokerage for virtual classrooms and MOOCs etc.

- The **services offered** by the NREN should be compiled **as baseline for a business plan** that shows the objectives, outputs/outcomes and activities planned with the different universities.

- Special attention should be given to increase the **digital literacy of researchers, lectures and librarians** in the same way as the digital literacy of **students** in order to get prepared for national and international competition **for research funding** as well as **for employment.**

Thank you

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