

POLICY SCENARIOS IN ETHIOPIAN HIGHER EDUCATION EXPANSION: CHALLENGES OF PROGRAM DIVERSIFICATION AND ITS FUTURE IMPLICATIONS

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Abstract. The study investigated the extent of Ethiopian higher education expansions policies and its program diversification responding to the local market demands and realities on the ground. The study explored a range of literature on Ethiopian higher education policy scenarios within national development policies. The study was guided by one research question: To what extent the expansion policy and program diversifications in Ethiopia higher education responded to the demands and realities of the local economy? The literature review, document survey and focus group discussions were used to examine the expansions policies and its program diversification processes. The finding of the study illustrates that responsiveness of Ethiopia higher education expansion policy brought a tremendous increase in enrollments within a short period of time. Moreover, the finding confirms that the graduate mix policy resulted poor program relevance and graduate unemployment crisis. Based on the findings of the study, conclusions were made for policy makers to critical revisit the policy

scenarios in Ethiopian higher education expansion, diversification and relevance in line with national, regional and global manpower demand.

Keywords: higher education, expansion policy, program relevance, diversification, graduate mix, deliverology

Introduction

The endorsement of the Ethiopian education and training policy of 1994 brought endeavors to expansion and program diversifications of higher education for the last fifteen years (2002-2017). Following the education and training policy, the education sector development program was developed in order to translate policy into action in line with the Ethiopian government's five years strategic plan (MOE, 2014). The reform initiated by the Ethiopian government aimed at addressing the rapid changing global knowledge convergence that demands local and global knowledge integrity (Teshome, 2007). In the current transformation of nations into knowledge economies and knowledge societies, higher education provides not only educated workers but also knowledge workers who contribute to the growth of the economy (Altbach & Knight, 2007). Scholars of higher education (Altbach et al., 2009) remarked that higher education as the chief concern of nation states plays a tremendous role in shaping and preparing nations for the future in an increasingly globalized world.

Since the endorsement of the current education and training policy of 1994, Ethiopia has engaged in a highly ambitious effort to re-align its higher education system more directly to its national strategy for economic growth and poverty reduction (MOE, 2016). The number of universities changed drastically from two universities to 49 universities within the last fifteen years. Within this expansion an attempt was made to diversify disciplines and human resource requirements in all development sectors (MOE, 2016). The massification of university enrollments in science, engineering and technology is the result of the

new strategic approach of the government of Ethiopia (MOE, 2017). In this context, the government of Ethiopia is focusing on helping its tertiary education institutions to become more innovative and responsive to the requirements of a globally competitive knowledge economy. However, the local responsiveness of Ethiopian higher education within the context of the current global demand may be questioned.

In the light of these realities the study was guided by the research question: to what extent the expansion policy and program diversifications in Ethiopia universities responds to the demands and realities of the local knowledge economy. The work of this manuscript was guided by this basic research question with briefly literature review on Ethiopian higher education policy within the context of national development policy framework.

Ethiopian development policy in higher education context

The study was conducted in Ethiopia, where the population is about 100 million people, which is the second highest among African countries after Nigeria. According to the World Bank report, the population of Ethiopia is still growing at a rate of 2.5% per year.¹⁾ Regarding the population, about 45% of the people fall into the youngest group of younger than 15 years of which 83 % live in the rural areas of the country. This shows that Ethiopia has a considerable potential regarding human resource development that can make a positive contribution to national economic development. From the geographical and ecological point of view and with regard to the traditions of the country, agriculture is the main occupation for both the highland and lowland inhabitants.¹⁾ The inhabitants of the highland temperate zones are engaged in farming, crop production and are well served with regard to education; most of the inhabitants of the lowland are pastoralist and had limited access to education until the introduction of the 1994 education policy (MOE, 2016).

Based on the realization of the agriculture potential and the existing young population, Ethiopia's development policy was designed to be Agricultural-Development-Led Industrialisation, ADLI (MOFED, 2011). Ethiopia is one of the poorest countries even when compared to developing countries as well as other African countries. This country's population has experienced severe famine and endured starvation over an extended period. Traditionally, farmers engaged in only subsistence farming. There are neither educated farmers nor mechanized agriculture to satisfy the basic needs of the population such as food production, although the country has fertile land with sufficient and appropriate rainfall and enough water resources for potential irrigation as an alternative economic policy apart from that pertaining to agriculture (Belay, 2006).

Agricultural-led development policy was aimed at fostering development rooted in agriculture and thereby, gradually producing an educated workforce that can promote the birth of industry. Strategically, when agriculture is well developed, it realigns its position in industry; while the industry plays a leading role (MOFED, 2011). The broad attempt of the agriculture-led development policy is described as:

[M]odernizing agriculture and improving its efficiency and productivity ensure food security, create employment opportunities and enhance the country's foreign exchange earnings with the aim to promote the development of a vibrant industrial sector and accelerate overall economic growth. ADLI is supplemented by sector-specific strategies in areas such as health, education, ICT, population, industry (p. 34).

The Ethiopian government's ambition is to (MOFED, 2010)

[t]o see Ethiopia become a country where a democratic rule, good governance and social justice reign upon the involvement its peoples, and extricating itself from poverty becomes a middle-income economy” as recognized by a per capita income of 1000 USD by 2025 (p. 12).

The intention of the Ethiopian government development plan can be met if the sustainability of educational reforms meets the pace of local and global demands through competitive performance (Teshome, 2004). Whatever the policy of the country, the skills of educated human resources ensure the implementation of a paper policy in practical terms in today’s globalized knowledge economy, where ‘information societies are emerging’ (Teshome, 2004), higher education institutions are inspired to produce appropriately skilled human power required that link local and global knowledge demand.

The Ethiopian government endorsed the growth and transformation plan to boost the country’s economic development to the minimum threshold of the middle-income countries by 2025. The first phase of growth and transformation plan was endorsed in 2010 till 2014/15, while the second phase of plan to endorse from 2016 to 2020. In order to achieve the intended target by 2025, the Ethiopian government expects higher education to play a role in local development that in turn promotes the competitiveness of the country with regard to global policy discourses.

The quality of knowledge and the knowledge economy relies on the quality of research and innovation that higher education delivers to meet the global knowledge demand.²⁾ The World Bank recommends that Ethiopia “would be wise to begin looking at ways to improve relevance of education in the near-term, but must be aware of the long-term nature of investments in tertiary education.²⁾ Therefore, on the legal basis of the Growth and Transformation Plan (GTP), Ethiopian higher education institutions are

expected to produce graduates with skillful focussing on job creation, satisfaction of local manpower demand and technology transfer consistently with country's priority needs that responds to global policy discourses.

In Ethiopia, higher education research report (Kahsay, 2012; Olkaba, 2015; Teshome, 2007) portrays that for the last 15 years, different reform tools for both higher education administration and quality management were introduced. Some of these tools are as follows: Business Process re-engineering (BPR) implemented for responding bureaucratic administration aspects of higher education, while Business Score Card (BSC) and Kaizen introduced for quality and resource management strategies in Ethiopian higher education (Kahsay, 2012; Olkaba, 2015). The Office of quality assurance at institutional levels and Higher Education Quality and Relevance Agencies were established national level to monitor Ethiopian higher education quality at large (Kahsay, 2012; Olkaba, 2015; Teshome, 2007).

Graduate mix policy and program diversification in Ethiopian universities

Besides the expansion policy of higher education, the Ethiopian Ministry of Education inaugurated the 'graduate mix policy' (MOE, 2009) in all public universities. The basis for the graduate mix policy was to balance the qualified human power for the growth and transformation plans to revitalize the country's economic from an agriculture-based economy to the export-led economy (MOE, 2009).

The intention of the graduate mix policy (MOE, 2009) is to have science and technology graduates with 70% school leaving students join public universities in the fields of science and technology and to have 70% of the students graduating in science and technology. However, the graduate mix policy of Ethiopian higher education resulted in a rapid increase in science and

technology enrolments with large numbers of new entrants at all Ethiopian public universities. And the Ethiopian ministry of education is claiming to continue at the same rate until 2025 (MOE, 2014). However, scholars in an area (Kahsay, 2012; Olkaba & Edosa, 2017; Olkaba, 2015) claim that the rapid increase in enrolments in the science and technology streams without much preparation, program relevance and quality are adversely impacting on the quality of graduates to search for employment or to create job as the country economy is at an infant stage to absorb an excess of graduates in science –engineering and technology disciplines.

On the other hand, because of the global knowledge economy and market competitiveness, educated manpower with globalized knowledge for local and global development is demanded to foster sustainable, rapid and equitable economic growth.³⁾ These illustrate the breadth and ambition of the Ethiopian government's current higher education reform, which suggests strengthening national capacities and improving the linkages between the labor force demands of an emerging global knowledge economy. Even though the Ethiopian government gives higher education a central position for social and economic development, its policy position for local knowledge economy development and market demand needs critical analyses to foster balanced manpower that determine the quality and standards of graduates to involve in both local and regional development demands.

The graduate mix policy states to have 70% school leaving students joining higher education and to have 70% of the students graduating in science and technology (Kahsay, 2012, Olkaba, 2015). This policy brought a rapid increase in science and technology enrolments with large numbers of new enrollment in all Ethiopian public universities. This rapid increase in enrolments in the science and technology created a chaotic situation for the country at large (Olkaba, 2015; MOE, 2017). Because of the fact that graduate unemployment

exacerbating the county within short period of time. Hence, Ministry of Education took initiative for assuring quality and relevance in Ethiopian higher education via a science of deliverology. Therefore, the main objective of the study was to examine the essence of deliverology from its inception to the current status and finally to reflect on the challenges in Ethiopian public higher learning institutions as to draw attention of the policy makers to its implementation.

Deliverology as a quality management strategy in Ethiopian universities

Academic community and scholars in areas of higher education policy can question why deliverology in Ethiopia, and why it is in higher education? During the introduction of deliverology, the philosopher of Deliverology Sr. Michael Barber came to Ethiopia and gave a day lecture on how to use deliverology in education system in general and higher education in particular. In his lecture Michael Barber told us that he worked in various levels of education in the United Kingdom and advisor of the former UK Prime Minister, Tony Blair and head of Delivery Unit, which supports the government of Blair for prioritizing and improving public high public demands and services (MOE, 2017).

During the inception of deliverology in Ethiopian, it was believed that the organization of delivery unit under ministry of education and delivery unit in each university were empowered to foster quality of graduates that secures job either by employment or by job creation. The partial restructuring of delivery unit of each University entitled to respond the prioritized areas in quality teaching learning processes, assurance for program relevance of undergraduate programs (MOE, 2017).

Accordingly, the endorsement of deliverology in Ethiopian higher education is to reverse the graduated unemployment crisis which is linked to quality and program relevance and graduate mix policy. Then, the government of Ethi-

opia took the initiatives to translate the graduate employability planned in education sector development (ESDP V, 2016-2020) into action. Thus, the essence of deliverology in Ethiopia higher education is to ensure the Fifth National Education Strategy for development program, ESDP-V (2016-2020) planned to ensure graduate employability of 80% within one year from the date of graduation with their respective discipline (MOE, 2016).

However, in the last two decades, Ethiopian higher education is characterized with unexpected expansion and enrollment growth of students with the policy notion of graduate mix approach and program diversification without considering the country's economic backlog. Even though deliverology emphasizes on few qualities of input and process management, program relevance and quality of the program itself in turn challenges endorsement of deliverology in Ethiopian universities

Methods

The study explored extensive literature review and recent empirical studies on Ethiopian higher education expansion and its program diversification process on higher education system and its discourses in line with program quality and job opportunities for the graduates. The researchers employed document survey at national level, Ethiopian ministry of education annual data of five years (2013-2017); policy documents and strategies, empirical studies and focus group discussions with academic community of Ethiopian public universities. The rationale for this approach was to provide a general picture of realities on ground and practical policy implication for future policy actions. The result of the study was categorized into the potential patterns of higher education enrollment, graduate mix policies, institutional policy disparity and program relevance directly linked to graduate employability and practices which provided a basis for the data complementarities.

Results and discussion

Graduate mix policy program diversification

Graduate mix policy and enrollment trends of the last five years (2013 – 2017) official data at Ethiopian Ministry of Education is evidence that expansion policy is going on.

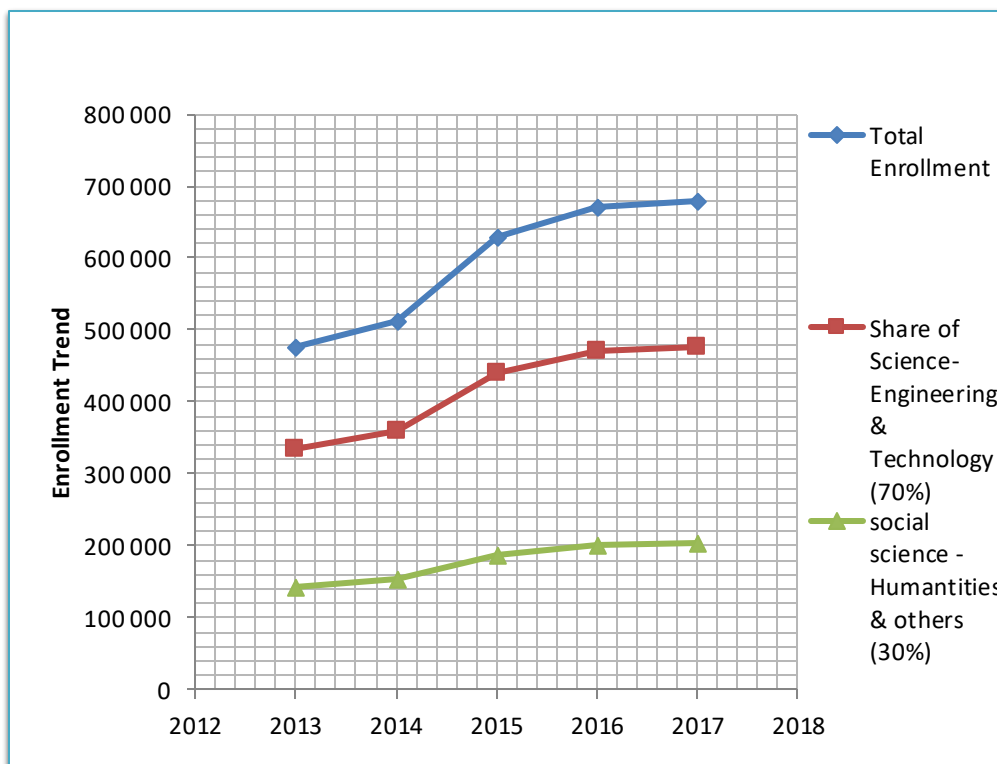


Figure 1. Ethiopian higher education enrollment trend 2013-2017

Fig. 1 shows the quantitative expansion of enrollment between 2013 and 2017, shows the rapid increase of enrollment at a rate of science, engineering and technology in five years' trends. Fig. 1 show the enrollment trends in science–engineering technology slightly increased from 2013 to 2014 sharply increased from 2014 to 2016. This is essentially fulfilled the government graduate mix policy premises of 70/30 student admissions to higher education.

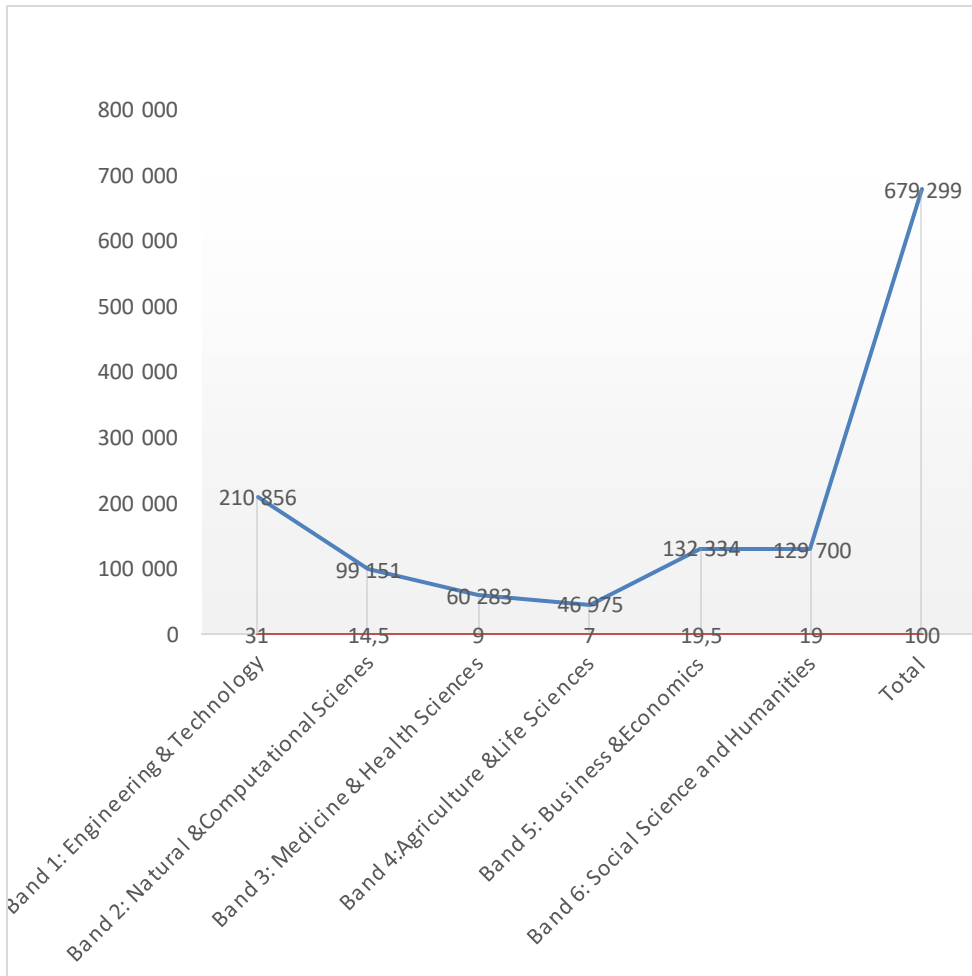


Figure 2. Ethiopian public higher education undergraduate enrollment by band – 2017

Fig. 2 clearly depicts that graduate mix policy of Ethiopian universities enrollment differentiated in to different bands. Fig. 2 portrayed that, from the total enrollment of students in public universities of Ethiopia 31 % of students joined engineering and technology, 14.5% joined natural and computational sciences, 9% joined medicine and health sciences, 7% joined agriculture and life sciences, 19.5% joined business and economics, 19% joined social sciences and

humanities. Accordingly the sum up of students enrolled in science –engineering and technology (band1, band 2, band3, and band 4) accounts for 61.5% while the sum up of business and economics -social sciences and humanities (band 5 and band 6) accounts for 38.5%.

Even though the differentiation of undergraduate program enrollments in Ethiopian universities attempted to balance manpower demands of the country, enrollment in science –engineering technology exacerbating reality on the ground which is contrary to facts and figures of Ethiopian manpower demand with the existing economy.

Scenarios in graduate unemployment crisis

The success of one university is measured by its quality education, program quality and opportunity for graduate employment. In this regard assessing global and local manpower demands and designing reliable academic programs are the responsibilities of universities (Olkaba, 2015). On the other hand, the program quality should be assessed through a tracer study that shows where graduates are, indicates the graduates' profile and their placement in the local and global job market. Further, the analysis of evidence of the impact on students' knowledge, attitudes, beliefs, skills and careers from global perspectives is a measure of graduate profile responding to the current global knowledge convergences. The response of the participants regarding graduate employment was as follows:

[W]e simply teach and graduate our students. We follow their academic completion according to their years of study and curriculum of their respective disciplines. So far no institutions are engaged in tracer study with clear policy direction to follow our graduate profile, whether employed at local or global working environment. Because of graduate mix policy most of our graduates most students' graduates in

engineering and technology eroding the street in search of jobs. No need of doing research regarding job security of graduates, you can hear from the family of graduates.

The participant reflection depicts the criticality of graduate mix policy suffering graduates of science-engineering and technology disciplines. Here the question of employment may be raised as where to employ the graduates and what are the opportunities at local or global, to absorb the graduates. In order to answer these questions, Ethiopian universities are expected to assess manpower demands at a local and global level in all programs to ensure relevance. On the other hand, there were discussants who claim for the Ethiopian higher education expansion policy as:

[W]ithout any hesitation, expansion of higher education has a lot of opportunity which can be explained in different dimensions. We are here to discuss on issues of higher education, first we are gathered here while the University is established here. Otherwise, we are elsewhere and we are unable to talk about higher education expansion. The current higher education expansion is addressing our country's educated man power demand and fair disturbing of universities between regions and provision of local higher education demands. When we compare our higher education with other developing countries such as Nigeria and Indian higher education, Ethiopian higher education expansion is not exaggerated rather additional higher education is demanded for our country.

According to the views of these participants, the problem is not expansion of higher education. It is possible to deduce from this argument that there is clear merit of higher education expansion. However, the challenge is the way

graduate mix policy endorsed without sufficient preparation and consensus among the implementers. Furthermore, regarding the outcome of the graduate mix policy the participants had explicitly explained the realities on the ground as follows:

[T]here was an orientation when we took our first entry to our university how and why to assign the proportion of student as 70:30 ratios. During the orientation, some academic group understood that the country's manpower demand dictated the government to develop the policy. Today it is referred as 70:30 higher education admission policies. But within short time, we are observing that there will be a mismatch between manpower demands in the intended ratio of graduate. For instance, for this year account department of our university wanted to recruit lecturers who graduated with MA degree in account discipline and advertised in Addis Zemen two times, and eventually didn't get any candidate. However, in the same university, in electrical department vacancy advertised for recruitment of lecturers 27 MSC graduate and more than 200 BSC graduate CVs were collected by human resources of our university. For further scrutiny, if we visit job seekers among others at least 55% are graduates of engineering and technology. We cannot deny these realities; it is an implication of the 70:30 admission outcomes. On the other hand, even though not supported with statistical data, there are hearings of here and there on lack of social science teachers for secondary education. This is also one indication of the 70:30 outcomes.

The researchers' point of view higher education academic communities are alerting the reality on the ground. In support of this comment, another participant recommended that:

[t]he curriculum of Ethiopian universities should be revised in line with local and global market demand”. I don’t expect all graduates from Ethiopian University to get job opportunity from local market only, why not competes at global market ...

These arguments confirm that there is a gap between the intention of endorsing expansion and program diversification process and the practice, on one hand, on the other hand there is a lot to do to realize the plan in having clear policy and program relevance to make sure that there will be local and global market demands for the graduates.

Institutional policy disparities

The national development policy is rooted itself in agricultural led industrialization, ALI. The policy synopsis of Agricultural led industrialization truly describes the realities of Ethiopian stagnant economy. The country is technologically and economical underdeveloped, and on the other side the country has well-resourced with fertile lands for agriculture and manpower to transform agriculture that would develop an economy which in turn promote industrialization.

Therefore, to realize the national development policy, Agricultural Led Industrialization, qualified agricultural technologist with relevant skill for national agricultural transformation should be expected to graduate from the universities. Furthermore, the quality of Agricultural technologists must be with high quality standard to create their own job and run their own business in agriculture as country has a capacity to respond full demand of graduates willing to run agro-industry businesses. In short the researchers view is that until the country’s economy ready enough to start its destination to industrialization, the quality and quantity of students joining and graduating from Ethiopian universities in agriculture determine the fate of agricultural led industrialization policy.

Whereas graduate mix policy took a counterpart a head of agricultural led industrialization policy manpower demand. Even though the country's development plan agricultural led industrialization contrary to these facts the statistical data of students enrollment by band generated in 2017 shows that only 7% of students are enrolled in agricultural disciplines, whereas 31% of students enrolled in engineering and technology discipline. Of course, this statistics can be true if and only of the economic transformation from agriculture to industry starts to absorb graduates of engineering and technology in a continuum approaches to balance the current national demand for agriculture led industrialization and the forecasted manpower demand in engineering and technology.

In support of these realities, the delivery associates, consulting documents Ethiopian ministry of education (MOE, 2017) reflected the facts on grounds of program relevance and quality in line with graduate employment as follows:

[T]he challenges in employment of graduates are often attributed to the mismatch between the supply and demand by the labor market. There seems little consideration /understanding/on the needs of the labor market, leading to a glut of graduates in similar even in one area and a dearth of industry in another. Currently, universities place students on internship, apprenticeship and externship programs. However, due to problem in planning and communication the implementation is affected that the values gained from these programs are limited. These challenges can be stated as the university doesn't structure the program with the program objectives, expected skills to be gained; whilst the companies receiving students do not plan the programs and do not provide supervisory or mentorship support to students (p. 12).

More over from the quick survey conducted in Ethiopia, only 52% graduates' employment recorded within 12 month or a year from date of graduation whereas 48% of graduates suffers from unemployment. According to this study, high proportion of graduate unemployment (41%) data was recorded in engineering and technology graduates. This fact clearly shows discrepancy in policy scenarios, program relevance and diversification from local market demand or the capacity of the economy to absorb the graduates are major challenges facing the country. The researchers portray the fact that the scenario of disparity in institutional policy development and program diversification in Ethiopian universities is suffering the country's manpower plan in line with national development plan. Because of these realities graduate unemployment is rushing the country in multifaceted economic crisis.

Conclusion

The findings of the study reveal that expansion policy and trends of program diversification and enrolment in teaching - learning had increased rapidly over five years (2013 -2017). The trends of enrolments and the level of academic program diversification are seen as evidence that expansion policy has met its target without considering the realities on ground, economy of the country to absorb the graduates for national development program.

The graduate mix policy scenario is one of the troubles and difficulty to imagine where the graduates search for jobs either locally or globally and where program quality plays a deciding role in their employment. The study confirms that it is the critical time to revisit higher education policy scenarios, disparity in institutional policy development with national development policy and program relevance for local and global market demand that predicts the quality of teaching learning.

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NOTES

1. <http://www.worldbank.org/en/country/ethiopia>
2. <http://www.worldbank.org/en/country/ethiopia/overview>
3. <https://openknowledge.worldbank.org/10986>

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