Policy Corner: Reforming higher education to promote research, innovation, labour productivity and competitiveness

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The Perspective Plan 2041 (PP 2041) recognizes the skills challenge and calls for a strong program for strengthening capabilities in higher education, technology, science, research, and innovation Bigstock

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Bangladesh has adopted Perspective Plan 2021-2041 that seeks to achieve upper middle-income status (UMIC) by FY2031 and high-income status (HIC) by FY2041.

It faces many constraints and challenges in securing these ambitious targets. Covid-19 has further intensified these challenges.

A most pressing need is gaining competitiveness in a rapidly changing global economy where competitiveness requires the adoption of highly automated technology, innovation, research and development (R&D) and a tech savvy skilled labour force.

Evidence suggests that Bangladesh is way behind in all these respects, especially regarding R&D and tech savvy skilled labour force.

The Perspective Plan 2041 (PP 2041) recognizes the skills challenge and calls for a strong program for strengthening capabilities in higher education, technology, science, research, and innovation.

In particular, PP2041 sets a target of achieving universal 12 years of free education for all by 2041; sharply increasing enrolment rate in tertiary education; improving education quality at all levels; expanding research and innovation capabilities; and increasing funding for education and research.

These priorities are reflected in the 8th Five Year Plan (8FYP), which is the first phase for implementing PP2041.

Recent research based on Bangladesh and global experiences, shows that Bangladesh faces substantial quantitative and qualitative challenges in the higher education sector.

Gross enrolment in tertiary education is 17% as compared with 50% in UMICs; only 6% of the labour force has tertiary education, while a mere 11.2% tertiary enrollment is in science, technology, engineering and math (STEM) subjects.

Bangladesh universities are ranked at the bottom 25% of global universities.

Tracer studies show high unemployment rates for university graduates and employer feedback suggests that graduates lack many job market-relevant skills, suggesting a disconnect between higher education and job market skills.

Research and innovation weakness is reflected by the Global Innovation Index (GII) ranking of 116 for Bangladesh out of 131 countries (bottom 11%)

This is explained by weak performance in several areas including: low tertiary enrolment in STEM subjects; low inward mobility of STEM graduates; low R&D spending (only 0.2% of GDP as compared with 2.2% in China and 4.3% in Korea); and weak ICT readiness—only 34% of Bangladeshi population have ICT access as compared with 88% in Korea, 75% in Malaysia, 62% in China and 55% in Vietnam; only 22% of Bangladeshi population use ICT.

Private university education

Bangladesh has done well in promoting private university education, although many quality issues prevail due to the weak accreditation system.

Public universities face serious governance and financing problems. Bangladesh has sought to provide autonomy to the university system by establishing the University Grants Commission (UGC) as an independent body to finance public universities and regulate both public and private universities.

However, evidence shows that public university governance is weak owing to the absence of inter-ministerial coordination on education and research, lack of oversight of UGC performance and accountability, weak UGC capacities, and the politicization of UGC and universities.

Perhaps the biggest constraint to university education is the weakness of financing.

Some 95% of public university funding comes from the government budget.

Public funding of universities amounts to a mere 0.3% of GDP and funding for research is negligible owing to the very low public R&D spending (0.2% of GDP.)

The reform agenda is large, given the many pressing challenges.

The four core areas where reforms are particularly essential concern the need to increase the quantity, quality and relevance of university education, strengthen research and innovation capabilities, improve university governance, and expand university funding.

Policy actions

Policy actions to increase quantity and strengthen the quality and relevance of higher education include:

(i) Increase tertiary enrolment to 50% by FY2031 as found in other UMICs and enhance quality at entry by ensuring a minimum of 12 years education for all and implementing the education sector strategy, policies and programs for primary, secondary and higher secondary education adopted in the 8FYP

(ii) Enhance tertiary enrolment in STEM subjects from 11.2% in FY2019 to 20% in FY2025; 30% in FY2031; and 40% in FY 2041

(iii) Pedagogy should place greater emphasis to problem solving and practical training

(iv) Strengthen ICT education by expanding the government's Master Plan for ICT in education to FY2025 and fully implementing the plan

1. v) Strengthen the research and publication focus of universities

(vi) Mobilize foreign student enrolment and international student and research exchange programs

(vii) Use utmost care and selectivity in recruiting university teachers based strictly on the quality of education, training, research and publication experiences

(viii) Ensure sound implementation of the Accreditation Council based on competent and professional management and internationally comparable accreditation framework

(ix) Ramp up the quality assurance mechanism at the institution level.

Policy actions to strengthen research and innovation include: (a) Establishing a national R&D strategy; (b) providing adequate public funding for R&D—the proposal is to increase R&D funding from 0.2% of GDP in FY2019 to 1% in FY2025, 1.5% in FY2031 and 2% in FY2041; (c) establishing university and business sector coordination in R&D; (d) establishing a sound institutional mechanism for R&D grant allocation such as the National Science Foundation in the USA; e) sharply lowering the ICT sector taxation to a level comparable with Korea, Malaysia, China and Vietnam; (f) greatly enhance the digitization of university education through a range of regulatory, fiscal and ICT infrastructure and equipment supply measures; and (g) ensure all university students have full time access to a laptop through subsidized access program

Policy measures to strengthen university governance involve: (i) Establish an Inter-Ministerial Higher Education Coordination Council (IMHECC) chaired by the Minister of education and involving all other 3 ministers and respective secretaries as well as the secretaries of finance and planning to set policies, and provide oversight to UGC; (ii) strengthen the UGC by converting it into the proposed Higher Education Commission (HEC) that sharply increases its role, responsibilities and accountabilities for university education funding and quality; (iv) strengthen selection process of UGC / University CEOs and board members strictly based on merit and qualification without regards to political affiliation; and (v) improve public university governance through depoliticization of public universities.

Policy actions for resolving the university financing constraint is key to addressing both the quantity and the quality challenges facing university education. Specific actions include: (a) increase government funding for public universities from 0.3% of GDP in FY2020 to 1 % of GDP in FY2025, 1.2% in FY2031 and 1.5% by FY2041; (b) enhance the beneficiary contribution to public university education through tuition and fee increases from 5% presently to 25% in FY2025; 30% in FY2031 and 40% in FY2041; (c) provide additional fiscal incentives for university education through an income tax credit for university student families; (d) explore and expand innovative university financing as found in UMIC and HIV

including income from own investments; private endowments and charities, and alumni funding; (e) increase needs-based scholarships for university students; and (f) institute a low-cost student loan program.

A successful implementation plan requires a well-thought monitoring and evaluation (M&E) system designed to measure progress and identify problems and issues.

The M&E system must be focused on quantifiable results to show concrete evidence of progress.

The M&E Framework should be updated on a 5-year cycle as progress is made.

The M&E responsibility should be assigned to the UGC that would provide secretarial support to the IMHECC.

The M&E report should be prepared on an annual cycle and it should assess progress made, identify areas of concern and suggest remedial actions.

The progress report should be reviewed by the IMHECC, shared with the cabinet and put on the UGC website.

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