

### Women in STEM and Higher Education: Afghanistan, India and Bangladesh

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- ❖ Female scientists across the globe face multiple challenges when pursuing both graduate degrees and careers in their respective fields. These challenges range from balancing motherhood and careers to poverty and lack of education as well as deeply engrained sexism within university systems.<sup>1-2</sup> UNESCO has estimated that of the world's total science researchers only 27% are female.
- ❖ In South Asia overall the number of women in higher education is either higher than or equal to that of their male counterparts. Women in this region who receive higher compensation or have obtained leadership roles tend to come from social science backgrounds instead of STEM (science, technology, engineering and math) educational or vocational backgrounds.<sup>3</sup>
- ❖ In 2009 Bangladeshi women enrolled in an engineering program increased from 14% in 1999 to 20%. While in Canada and the U.S. the rates dropped from 19% in 2000 to 17% in 2009.<sup>4</sup> UNESCO estimates that in 2010 14% of Bangladeshi researchers were female.<sup>5</sup>
- ❖ The number of women engineers in India increased from 910 in 1970 to 264,370 in 1995. These numbers are on par with those in the US and UK.<sup>6</sup> Indian women represent 65% of science and engineering college enrollments with the numbers increasing to 80.4% in the biological, medical, and life sciences.<sup>7</sup>
- ❖ In 2014 the science faculty at Kabul University in Afghanistan was 40% female. The same year the university had 1,500 students pursuing degrees in science on track to become engineers, teachers and bankers.<sup>8</sup> Of the 6.2 million students enrolled in 2008 36% were female. The percentage of female instructors for that year was 29%. The Ministry of Higher Education in Afghanistan aims to have at least 30% female students in higher education by the end of 2014.<sup>9</sup>

<sup>1</sup> March 14, 2014 <http://www.theguardian.com/higher-education-network/blog/2014/mar/15/women-science-research-university-discrimination-academics-anonymous>

<sup>2</sup> September 1, 2014 [https://www.cfa.harvard.edu/~srugheimer/Women\\_in\\_STEM\\_Resources.html](https://www.cfa.harvard.edu/~srugheimer/Women_in_STEM_Resources.html)

<sup>3</sup> March 6, 2014 <http://blog.britishcouncil.org/2014/03/06/where-have-all-the-women-gone-in-higher-education-leadership/>

<sup>4</sup> August 29, 2011 [http://www.thestar.com/opinion/editorialopinion/2011/08/29/low\\_gender\\_balance\\_in\\_hightech.html](http://www.thestar.com/opinion/editorialopinion/2011/08/29/low_gender_balance_in_hightech.html)

<sup>5</sup> August 2010 <http://www.scidev.net/global/education/feature/overcoming-gender-barriers-in-science-facts-and-figures-1.html>

<sup>6</sup> July 2012 Gupta, N. (July 01, 2012). Women Undergraduates in Engineering Education in India: A Study of Growing Participation. *Gender, Technology and Development*, 16, 2, 153-176.

<sup>7</sup> October 29, 2013 <http://www.elsevier.com/connect/study-reports-indias-slow-progress-in-advancing-women-in-science-and-technology>

<sup>8</sup> January 15, 2014 <http://www.worldbank.org/en/news/feature/2014/01/15/afghanistan-supporting-science-build-brighter-future>

<sup>9</sup> March 2010 <http://unesdoc.unesco.org/images/0018/001899/189969e.pdf>