International Women’s Day Centenary
Equal Access to Education, Training and Science and Technology:
Pathway to Decent Work for Women

1. Introduction

This year is International Women’s Day centenary. The IWD has evolved from its humble beginnings, commemorated in three or four European countries in 1912, to become an important global event celebrated at international, national and local levels. It has also transformed from being an event to press for reforms, such as women’s right to vote, work, and participate in public life to a celebration of success. But even though a lot of progress has been made in the past century as women now have the right to vote and an increasing number of women are members of parliaments. A number of African countries such as Rwanda, Tanzania, Namibia, Mozambique and South Africa rank amongst the top world best performers. However, in other areas a lot still needs to be done. Gender gaps in secondary and tertiary education and in science and technology remain high the world over and women’s status in the workforce still leaves much to be desired.

2. The Situation

2.1 With regards to education, the 2010 MDG report on Africa suggests that the continent has made tremendous gains in closing gender gaps in primary education with many countries close to reaching gender parity or surpassing it. In secondary education Africa is below all other regions in terms of aggregate enrolment figures. At 45%, Africa has the lowest level of lower-secondary participation compared to 90-100% in the other regions. The gross enrollment rate for upper secondary is 29%, also the lowest worldwide (40-100% percent elsewhere). Overall, the gender parity index for secondary education in Sub-Saharan Africa stood at 79, the lowest in the world. By comparison, the North African region with a gender parity indicator of 98, has almost reached parity. At the tertiary level the gender parity index in Sub-Saharan Africa dropped from 71 to 67, while in North Africa it rose to 98. These figures mask large variations within Africa: a few African countries have now reached a gender parity index above 100, suggesting that more women are enrolled while others still struggle with large gaps. In employment too, gender equality is a long way off and hiding large differences: In Sub-Saharan Africa one in three women were employed outside agriculture and only 29% were in management positions. In North Africa, even though gender parity is almost a reality, only 20% of women are in paid employment (outside agriculture) and only 9% in management.

2.2 In many African countries, vocational education and training (VET) is neglected as most efforts are placed on primary and general secondary education. This
sub-sector is considered to be a key weakness of the education system. In general, VET represents less than 10 percent of the total secondary enrollment. Part of the challenge is that VET is largely perceived as the choice by default for over-aged students and students with poor performance. Vocational training is also not only an education sector with very large gender gaps but also very stringent gender stereotyping of subjects. This means that if women participate in tertiary education they cluster in “traditional subjects” such as secretarial/hair-dressing, tailoring in VET and the humanities at university level. In fact, there is evidence which shows that that the more female teachers act as role models for girls in non-traditional subjects the more girls participate in them. Affirmative action for the training and retention of female science and technology teachers is therefore recommended.

3. International Policy Commitments

3.1 The centenary’s theme: equal access to education, training and science and technology as pathways to decent work for women is thus a worthy theme, able to both celebrate great successes and push for great improvement. Great challenges remain globally and in Africa. Regarding education at primary and secondary level, the Millennium Development Goals (2000) are, after the World Education Forum in Dakar in 2000, perhaps the most binding document both on participation and gender parity in primary and secondary education, promising to achieve gender parity by 2015. Education was also emphasized in the Beijing Platform for Action (1995) as key to women’s empowerment. It expands women’s opportunities, enhances their capacity to develop their full potential, contributes to more equal gender relationships and ultimately enables women to benefit from development interventions. Education enables women to use their “voice” more effectively in the household, community, workplace and the public arena. Literacy also enables women to conduct negotiations and transactions with formal institutions such as banks, trade networks. With regards to tertiary education and training, including in science and technology, the platform urged governments to increase women’s access to and retention in science and technology, including affirmative action. It also urges governments to promote gender-sensitive and women centered technology and to promote access of poor rural women to technology.

3.2 In Africa, the Nairobi Action Plan for Technical and Vocational Training (1999) recommends the elimination of stereotypes which tend to consider that purely technical disciplines are not appropriate for women and girls. And the importance of girls’ access to science and technology education is stressed in many other policy documents, including the African Youth Charter (2006), and the SADC Gender Policy (2009).

4. The Policies within the Bank
Within the Bank various documents support these global and regional commitments: The 1999 Education Sector Policy placed special emphasis on the importance of gender and education and its vital role for economic growth and poverty reduction. The 2001 Gender Policy “promotes girl’s education in the fields of science and technology in order to ensure access to career development and training to meet the needs of the changing socio-economic context”. In 2005 the Bank saw a shift from primary and secondary education to Higher Education, Science and Technology. The 2008 related Strategy is pivotal for fulfilling the RMCs demand for strong knowledge-based economies through human development, particularly in tertiary education, science and technology and technical and vocational training in order to advance economic growth and affirms “more participation of girls and women in higher education and in S&T-related education at all levels”.

5. The Bank’s Contribution

Over the years the Bank has contributed considerably towards improving both access and quality education at all levels through construction and equipment of classrooms and science labs. Bank financing has also increased education access for girls through a number of measures: Bank projects financed in-service training for teachers to make them better equipped to treat both boys and girls fairly, and education projects routinely construct separate ablution blocks and boarding facilities for girls and female students, and in a number of projects, has reviewed educational materials. In order to increase the ratio of girls in science and technology and in non-traditional technical and vocational training, the AfDB financed the revision of curricula to be more girl-friendly, the production of gender sensitive information materials on science and technology careers, scholarships, bridging courses and mentorship programs for girls willing to enter non-traditional subjects.

6. The Challenges

6.1 But training girls and women in science and technology subjects is not sufficient. Women also need to be enabled to work in their respective fields at the same levels and for the same salaries as their male counterparts. In Tunisia, for example, where women actually dominate in some science subjects and are almost at par with men in others at tertiary level, they still make little impact on research agenda, since they only constitute fewer than 8 percent of scientific team leaders.1 One can imagine how much influence is accorded to women scientists in countries where they are only a fraction of the science and technology students.

6.2 It has been observed that many women who received science education do not use this knowledge in their professional life. The authors of the Expert Group Meeting on Gender, Science and Technology which met in Paris in the fall of 2010 remark that the gender bias in science and technology “limits excellence … and therefore reduces the

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benefits that research and development brings to society.” It is in other words a waste of human resources.

6.3 In fact, it has been proven that women bring sensitivities to bear in science and technology development that render the end result more comprehensive and better targeted. In fact, today, much of the decision-making on science and technology is male dominated, often leaving out the specific needs of women. This is particularly important in Africa where women still bear the burden of labor intensive work, and where women farmers, the majority in many cases still use antiquated equipment for production, and their access to markets and information is hampered by their lack of access to information technology. This means that getting women into science and technology ultimately promises to benefit society as a whole and contribute to women’s empowerment, not just in terms education and employment but also in terms of access to appropriate, useful technology able to free women’s labor, increase their production and their potential incomes. In fact, the availability of reliable and accessible rural transportation facilities, for example, have a positive correlation with maternal health; just as access to well designed water and sanitation facilities can improve health, education and employment status. The involvement of women in research and development of rural technology would improve the health and wellbeing not just of women but whole communities.

6.4 This is an area where the Bank needs to make extra efforts, particularly in the context of the severe effect climate change has and will have on African livelihoods, which has been shown to affect women more deeply than men due division of labor and responsibilities. The Bank needs to make more efforts to encourage the participation of women in the climate change debate, both as scientists in the design of mitigation and adaptation, and as end users of new technology. We need all the knowledge and thought we can muster to face Climate change challenges. It is appropriate that Africa should be the lead not only in the discussion about climate change in Africa, but also the lead in involving women as scientists and end users of technology into this very important area. For example, the first African woman to be honored with the prestigious Nobel Peace Prize, Wangari Maathai, is a model and a source of inspiration for everyone in Africa and the world fighting for sustainable development, poverty alleviation, gender equity, democracy and peace. The Nobel Laureate combines scientific knowledge, education, social commitment and active advocacy in her approach. More than simply protecting the existing environment, her strategy is to secure and strengthen the very basis for ecologically sustainable development.

7. Summary

Education, training and science and technology are not gender neutral – in fact, gender gaps exist in all areas, particularly in higher education: gender gaps and gender

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segregation of subjects are particularly wide in vocational training and science and technology at university level. Gender gaps also exist at the level of employment, even in countries where women dominate the sciences in training. The participation of women in design teams would potentially improve the quality of applications and is more likely to improve usefulness and access for women on the ground. Gender sensitive science and technology can help reduce women labor burden, free time, increase agricultural yields, income and could even result in better maternal health. It will increase food security and should therefore be supported to the fullest by the Bank.