Skills Development as a Means to Women’s Empowerment: 
**Integrating Gender Equality in TVET**

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Colleges and Institutes Canada (CiCan) is the national not-for-profit membership association of Canada’s publicly-funded colleges, institutes, Cégeps and polytechnics. Known previously as the Association of Canadian Community Colleges (ACCC), CiCan and its members are committed to driving Canadian prosperity by being global leaders in applied education and partnered innovation.

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THE COLLEGE AND INSTITUTE APPROACH TO DEVELOPMENT

Colleges and Institutes Canada (CICan, previously known as ACCC) is the national not-for-profit membership association of Canada’s public colleges, institutes, cégeps and polytechnics. It represents its members at the national and international levels and is committed to quality education and skills development opportunities for all Canadians to maximize labour market participation and support Canada’s prosperity and nurture global citizenship.

Canada’s colleges and institutes are major drivers of human capital development in Canada. They are found in over 3,000 communities across Canada, serving 1.5 million Canadians every year, and they offer more than 8,000 different education and training programs leading to formal qualifications tailored to the needs of individual learners. Internationally, they have shared this knowledge and know-how through strong and sustainable institutional partnerships with counterparts in developing countries to help them strengthen skills development capacity and create pathways to employment or self-employment in key economic sectors, including agriculture, health care, renewable energy, natural resources, construction, food processing, fisheries, logistics and tourism, to name but a few. This network of public institutions has also engaged more and more Canadians from big cities and small communities in international development assistance efforts. “Development Days” and reports back from missions in the context of institutional partnerships are routine now and educate and engage not only students and faculty but also the broader community.

For more than forty years, CICan and its member colleges and institutes have been actively engaged internationally in strengthening access to relevant, quality education and training for employment and self-employment, working in partnership with the Government of Canada to implement more than 700 development assistance projects in over 100 countries. Our Education for Employment approach contributes to sustainable economic and social development in our partner countries by supporting governments, institutions and the private sector to collaborate in providing learning that is relevant to local skills demand and that leads to employment and self-employment for youth, greater gender equality, green economic growth and poverty reduction.

CICan believes that the institutional partnership approach that grounds all our Education for Employment (EFE) programs is an effective strategy for bringing about comprehensive and sustainable change to education and training systems in the development context (see Fig. 3 below). Setting up technical partnerships by twinning education and training institutions in Canada and developing countries has long been our core approach to ensure effective knowledge sharing and adaptation of Canadian expertise. Our EFE programs integrate further partnerships with ministries of labour, education and specific economic sectors, education and training authorities, private sector employers and associations and local community or civil society groups—all in support of the overarching goal of creating pathways to decent employment.

Institutional partnerships deliver good program management results on many fronts. They create a useful mechanism for direct private sector involvement. They allow government partners to ensure an alignment between institution-level change with broad reform policies or strategies. They create strong linkages between individuals and organizations that support effective knowledge exchange, continuous follow-up of activities and the effective coordination of a systems-based approach to education reform. We have seen how they can minimize certain project risks, such as the unexpected departure of key individuals. We have also observed that this approach is effective at mobilizing unforeseen institutional expertise and contributions beyond the planned and funded project outputs. Finally, in several countries, including Brazil, China and Senegal, initial partnerships have developed into decades-long relationships.

Because of the results of these international activities, CICan has also been selected as the UNESCO-UNEVOC Pan-Canadian Centre and lead for North America, and as chair of the World Federation of Colleges and Polytechnics (WFCP). This is also because the Canadian college and institute system is now viewed by many around the world as one of the two models, along with the German/Swiss apprenticeship system, most relevant to developing countries in the process of reviewing their education and training systems.
# CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXECUTIVE SUMMARY</td>
<td>i</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>THE CASE FOR GENDER RESPONSIVE TVET</td>
<td>1</td>
</tr>
<tr>
<td>INTERNATIONAL POLICY COMMITMENTS TO GENDER EQUALITY</td>
<td>2</td>
</tr>
<tr>
<td>GENDER EQUALITY AND INCLUSION OF WOMEN IN TVET: BARRIERS TO</td>
<td>4</td>
</tr>
<tr>
<td>ACCESS, RETENTION &amp; COMPLETION</td>
<td></td>
</tr>
<tr>
<td>CURRENT INTERNATIONAL POLICY AND PRACTICE TO INCREASE</td>
<td>6</td>
</tr>
<tr>
<td>WOMEN’S ACCESS AND PERFORMANCE IN TVET</td>
<td></td>
</tr>
<tr>
<td>CANADA’S COLLEGES AND INSTITUTES AND THE EDUCATION FOR</td>
<td>9</td>
</tr>
<tr>
<td>EMPLOYMENT APPROACH TO TVET CAPACITY BUILDING</td>
<td></td>
</tr>
<tr>
<td>“MULHERES MIL”: GENDER-FOCUSED TVET IN BRAZIL</td>
<td>14</td>
</tr>
<tr>
<td>EDUCATION FOR EMPLOYMENT PROGRAMS AS A STRATEGY FOR WOMEN’S</td>
<td>15</td>
</tr>
<tr>
<td>EMPowerMENT</td>
<td></td>
</tr>
<tr>
<td>SUPPORTING BETTER LABOUR MARKET TRANSITIONS AND OUTCOMES FOR</td>
<td>18</td>
</tr>
<tr>
<td>WOMEN</td>
<td></td>
</tr>
<tr>
<td>CREATING OPPORTUNITIES FOR WOMEN IN THE SUSTAINABLE ECONOMIC</td>
<td>21</td>
</tr>
<tr>
<td>GROWTH AGENDA AND EMERGING SECTORS</td>
<td></td>
</tr>
<tr>
<td>THE ROLE OF TVET INSTITUTIONS IN PROMOTING WOMEN’S SEXUAL</td>
<td>23</td>
</tr>
<tr>
<td>AND REPRODUCTIVE HEALTH AND RIGHTS</td>
<td></td>
</tr>
<tr>
<td>CONCLUSION &amp; RECOMMENDATIONS</td>
<td>25</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>29</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

OVERVIEW

- Technical and Vocational Education and Training (TVET) systems are an important component of national strategies for economic growth that emphasize the role of knowledge and skills for employment and productivity. By enabling men and women to expand their choices through enhanced capabilities, TVET is also a means for women’s empowerment.

- Worldwide, women remain substantially underrepresented in TVET programs, especially in areas related to science, engineering, mathematics and technology. The distribution of male and female learners in TVET programs contributes to horizontal labour market segregation where women are over-represented in jobs with lower productivity, lower pay and lower status.

- Women face numerous types of barriers to accessing and completing TVET. These include:
  - barriers within the education and training system,
  - societal attitudes towards ‘male’ and ‘female’ occupations, and
  - perceptions that TVET does not necessarily lead to improved income and livelihood.

- Policy and programs to achieve gender equality in TVET consist of two, related types:
  - measures that specifically seek to improve women’s attraction, retention and completion of TVET programs, including successful transition to employment, and;
  - measures that address the specific attitudes of different influential actors, from girls and young women themselves, to parents, teachers and employers.

- Effective TVET capacity building practices that are mindful of women’s empowerment and gender equality are characterized by program elements such as:
  - development and delivery of programs that enable women to practice occupations in specializations or sectors in which they are traditionally underrepresented;
  - review of programs and delivery modes to ensure gender equality and development of teaching materials that depict both men and women exercising the profession, use neutral language and eliminate hidden assumptions regarding gender roles;
  - development of modules on the gender dimensions of entrepreneurship promotion and environmental protection;
  - gender-sensitive outreach and marketing efforts that are designed to attract both sexes to the curricula on offer;
  - student support services such as child care facilities, referrals to employment opportunities and support classes in science, technology,
engineering, and maths, which can help to improve the performance of female learners and reduce their dropout rate;

- educational supports such as literacy and essential skills training and Prior Learning and Recognition (PLAR) services that seek to redress inequities in women's access to education and training opportunities.

- Colleges and Institutes Canada's (CICan's) *Education for Employment* partnership-based approach to TVET capacity building in developing countries integrates gender equality across all program areas, including gender-sensitive teacher training and pedagogy, adapting training materials to promote equal participation by men and women, reviewing national policies and integrating gender equality into environment and entrepreneurial modules during training delivery. The partnerships provide a practical standard for gender mainstreaming which can be integrated into the *Education for Employment* approach that focuses on capacity building for local schools and government as well as civil society stakeholders.

- Canadian colleges and institutes were also the key technical partners in the *Mulheres Mil* (A Thousand Women) project in Brazil. The project built the capacity of Brazilian Federal Institutes to assist marginalized women to access job-specific training and enter the formal workforce, or to strengthen their entrepreneurial activity. The project is a powerful demonstration of the role of Prior Learning and Recognition (PLAR) in recognizing and validating women's informal experience and knowledge. The project was so successful that the Government of Brazil scaled it up to a national-level initiative with the goal of reaching 100,000 women.

**RECOMMENDATIONS**

- Women-focused TVET initiatives should be a part of Global Affairs Canada's development assistance to meet new, ambitious Canadian and international goals for women's economic empowerment and gender equality.

- Development partners should ensure that the human rights perspective, as well as the economic development and human capital perspective, should be a part of any TVET capacity building initiative related to women's empowerment and gender equality.

- CICan's *Education for Employment* projects should be used as entry points to work with local TVET partners to mobilize funding for gender equality and women's empowerment from local, provincial or national state authorities.

- TVET interventions concerned with women's economic empowerment must recognize the existence of persistent barriers to employment and incorporate measures that support women's transition to employment.

- TVET capacity building initiatives should respond to unmet demand for bridging, access, and pre-entry programs that help increase access to TVET for young women who face systemic barriers and older women who require training
or retraining for decent work. Literacy and essential skills education and the use of Prior Learning Assessment and Recognition (PLAR) are key supports.

- Practical and work-based experience is a key element of most contemporary approaches to TVET. These interventions warrant further implementation in developing countries based on Canada’s considerable expertise in this area; evaluation activities should seek to gauge the impacts of such approaches on women.

- This is the right time to attract women into TVET disciplines where they will become skilled in the use of new technologies, especially those related to renewable energies, green technology and agri-business development, since these emerging sectors can still be cast as gender neutral.

- Education related to women’s and men’s sexual and reproductive health and rights should be integrated into TVET capacity building initiatives. Through CICan’s Education for Employment approach, Canadian colleges and institutes are well placed to collaborate with local partners to develop appropriate activities and policies, and to pilot innovative approaches integrating sexual and reproductive health and rights into workplace health and safety training.

- CICan’s Education for Employment project partners require further support to conduct evaluation of the longer-term impacts of programming related to gender equality, as the effects may only be visible after such initiatives end.
INTRODUCTION

As the development of middle and advanced skills becomes more important in creating jobs and increasing productivity, Technical and Vocational Education and Training (TVET) is attracting increasing interest as a priority education sector. In developing countries with young populations, addressing significant unemployment and underemployment, especially among young men and women, is an important priority for both economic and social policy.

While women have made significant strides in access to education and participation in the labour market, gender relations predicated on male-defined value systems have contributed to inequalities, including an inequitable division of labour. These have tended to limit women’s access to skills development and employment opportunities, particularly in occupations where women have traditionally been underrepresented, such as those related to science and engineering and many skilled trades—occupations usually associated with better remuneration and job opportunity.

This paper was commissioned by Colleges and Institute Canada (CICan) as a part of its ongoing commitment to engage policymakers in Canada and in partner developing countries in thinking about the important points of intersection between gender equality and women’s economic empowerment, and policies related to building the critical technical and generic skills needed to support economic growth in developing nations. It provides an overview of the diverse measures employed by TVET experts worldwide to increase women’s participation in education initiatives. It also identifies some strategic entry points for Canada’s future support to TVET initiatives in partner countries, particularly in relation to the emerging priorities articulated in the Shanghai Consensus and the 2030 Sustainable Development Goals. It also builds on previous recommendations regarding Canada’s emerging priorities for international development assistance. And, it considers the track record and future role of Canada’s colleges and institutes in contributing to gender equality outcomes through TVET capacity building. As a part of this review, this paper reflects on the outcomes of CICan’s Education for Employment projects and how these align with a global development agenda increasingly focused on women’s equality.

THE CASE FOR GENDER RESPONSIVE TVET

TVET systems are an important component of national strategies for economic growth in the context of neoliberal or mainstream economic policy approaches that emphasize the role of knowledge and skills for employment and productivity. However, TVET focused on the needs of learners as well as those of employers and society in general can also be a force for human wellbeing, freedom, social justice and human agency. By

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1 Colleges and Institutes Canada (CICan) is the “national, voluntary membership organization representing publicly supported colleges, institutes, cegeps and polytechnics in Canada and internationally.” For more information please refer to the inside front cover of this report, or visit CICan’s website at www.collegesinstitutes.ca.

enabling men and women to expand their choices through enhanced capabilities, TVET is a means to empowerment.3

There are various conceptual models for integrating gender equality in TVET. Firstly, there is the human rights perspective that posits that education for all, including TVET, is a fundamental human right and calls for measures to ensure that men and women have equal access to TVET as a matter of social justice. Secondly, there is the human development perspective, which draws on growing evidence of strong correlations between women’s educational attainment and other areas related to their well-being and empowerment. Participation in secondary education is known to have strong effects on a range of outcomes for women such as “their health and well-being, position in family and society, economic opportunities and returns, and political participation.”4

TVET, as a subset of secondary education (in most countries) is particularly attuned to shorter-term outcomes with respect to employment and income generation and these, in turn, can contribute significantly to the social and economic empowerment of women. Proponents of the human development perspective also advocate for women’s integration in TVET as a strategy for poverty reduction. For example, research shows that equalizing educational attainment levels can have a significant impact on the overrepresentation of women in unpaid labour or the informal economy.5 Thirdly, the efficiency approach contends that labour and capital productivity can be maximized when men and women possess the right skills; this results in increased wealth for individuals, households and the national economy as a whole. From this perspective, women’s access to TVET is a means to increase economic growth.6

INTERNATIONAL POLICY COMMITMENTS TO GENDER EQUALITY

Most partner countries that benefit from Canadian international cooperation are signatories to the Convention on the Elimination of All Forms of Discrimination Against women (CEDAW) proposed by the United Nations in 1979. Although almost 40 years old, this convention continues to serve as the primary framework for women’s empowerment as signatory countries are gradually domesticating the convention by reviewing and amending their national legislation and policies. The United Nations Commission on the Status of Women monitors this process, and the Government of Canada is a signatory.


The Convention covers gender inequalities in the social, economic, political and cultural spheres, and addresses access to education, including TVET. Article 10 of CEDAW states that:

State parties shall take all appropriate measures to eliminate discrimination against women in order to ensure to them equal rights with men in the field of education and in particular to ensure, on a basis of equality between men and women: (a) the same conditions for career and vocational guidance, for access to studies and for the achievement of diplomas in educational establishments of all categories in rural as well as in urban areas; this equality shall be ensured in preschool, general, technical, professional and higher technical education, as well as in all types of vocational training. [...]  

In May 2012, approximately 150 countries attended the Third International Congress on TVET in Shanghai. There, they signed the Shanghai Consensus, which includes a specific recommendation on the improvement of women's access to quality TVET programs, namely: “Improve gender equality by promoting equal access of females and males to TVET programs, particularly in fields where there is a strong labour market demand, and by ensuring that TVET curricula and materials avoid stereotyping by gender.”  

The Shanghai Consensus also articulated the need to enhance the relevance of TVET, particularly to support the transition to green and circular economies. Other priorities specified in the Consensus include the need for inclusive measures that make TVET accessible to marginalized and rural populations; the need to develop pathways and provide career guidance; improved evidence for advocacy and policy making, and; increased investments and diversified financing mechanisms for TVET. Properly designed, such measures can have a positive impact on women's access to TVET.

Governments have also made commitments to integrate gender equality in TVET through the ratification of the 2030 Sustainable Development Goals (or “SDGs”). SDG 4 calls for inclusive and gender equitable quality education and lifelong learning opportunities for all; several sub-goals specifically address the role of TVET, while the issue of gender is addressed across the various sub-goals:

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university;

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship;

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including

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7 Quoted from www.un.org/womenwatch/daw/cedaw/text/econvention.htm#article10.

8 The 3rd International Congress on TVET was dedicated to examining progress and challenges around the theme: transforming TVET- building skills for work and life. The text of the Consensus is available from www.unevoc.unesco.org/fileadmin/up/217683e.pdf.
persons with disabilities, indigenous peoples and children in vulnerable situations.9

SDG 5 is dedicated to the achievement of gender equality and the empowerment of all women and girls, and it reaffirms the priorities identified in CEDAW.10 Furthermore, the SDGs recognize that technology can play a fundamental role in achieving gender-responsive sustainable development, thus providing promising entry-points for TVET as a key strategy to contribute to skills for sustainable management of scarce resources, reversing pollution, enhanced food security and energy security.

GENDER EQUALITY AND INCLUSION OF WOMEN IN TVET: BARRIERS TO ACCESS, RETENTION & COMPLETION

Worldwide, women remain substantially underrepresented in TVET programs, especially in areas related to science, engineering, mathematics and technology.11 Even in countries with relatively high numbers of female TVET graduates, women have a strong tendency to concentrate in food processing or textile manufacturing, and professional training in accounting, management, secretarial services and the service sector in general. Very few enter skilled trades that are traditionally considered too physically demanding or technical for women.12 Meanwhile, men shun acquiring skill sets seen as typically feminine because these are often associated with lower paying jobs with low social status and acceptance. The distribution of male and female learners in TVET programs thus contributes to horizontal labour market segregation where women are over-represented in jobs with lower productivity, lower pay and lower status.

The available literature identifies a wide range of barriers to women’s entry in, and completion of TVET programs.13 These can be grouped into three categories:

i) barriers in the education and training system;

ii) societal attitudes towards ‘male’ and ‘female’ occupations, and;

iii) perceptions that TVET does not necessarily lead to improved income and livelihood.

Girls are less likely than boys to be exposed to technically and technologically oriented subjects in primary and secondary education. In countries with single sex schools, technical subjects such as metalwork, woodwork and technical drawing are not routinely offered in most girls’ secondary schools. Due to the small number of women teaching science and technical subjects at secondary level, girls also lack the necessary role models. The lack of women in senior management positions at different levels of

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12 See also www.oecd.org/gender/data/education/.

the education system in most countries further reinforces this deficit. Where schools do not offer effective career guidance and counselling to their learners, young people depend on the outreach campaign of TVET institutions and their further study choices are heavily influenced by parents and peer groups.

Attitudes and sex stereotyping by parents and society at large promote the view that technical occupations are the exclusive preserve of men. Girls internalize these views from a very young age, in ways that can preclude them from making certain choices or acquiring key attitudes leading to academic success and advancement. In countries like Mozambique, where girls are prepared from an early age for their reproductive roles, teenage pregnancy and early marriages are commonplace, and result in very high drop-out rates that increase with age. In developed countries too, there is strong social pressure for girls to conform to the gender-based division of labour, which contends that women are primarily responsible for the reproductive care economy in the household, as an extension of their roles as spouses and mothers. In this light, it is interesting to note that European countries show stronger patterns of occupational segregation than developing countries because segregation is positively correlated with the share of part time jobs, reflecting women’s use of this mechanism to reconcile their conflicting responsibilities of work and family. Women’s attitudes about their own roles and capabilities also influence their study and professional aspirations: women’s acceptance of or deferral to patriarchal norms frequently results in an expectation and acceptance by women themselves of failure in areas that challenge the stereotyped division of labour, such as science, engineering, maths and technology.

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15 Indeed, research shows that gender stereotypes can be internalized from a very young age. See Lin Bian, Sarah-Jane Leslie and Andrei Cimpian (2017), Gender stereotypes about intellectual ability emerge early and influence children’s interests, Science 27 Jan 2017, Vol. 355, pp. 389–91.
CURRENT INTERNATIONAL POLICY AND PRACTICE TO INCREASE WOMEN’S ACCESS AND PERFORMANCE IN TVET

Policy and program interventions to achieve gender equality in TVET can be characterized along two related axes: (1) measures that specifically seek to improve women’s attraction, retention and completion of TVET programs, including successful transition to employment and (2) measures that address the specific attitudes of different influential actors; aside from girls and young women themselves, other key actors may include teachers and other school staff, family members, employers and co-workers, policy makers, community and civil society leaders, and others.

Considering that gender roles and the concomitant division of labour are deeply rooted in the societal and cultural context, the first step towards effectively increasing women’s access to TVET is to understand the cultural context properly and to base strategies on that understanding. For example, child care facilities were a key to getting young single mothers into vocational training in Germany, but in many African countries there can be very little demand among young single mothers for daycare, as young children are left in the care of relatives. This example serves to illustrate why donor-funded TVET support programs commonly contract Gender Advisors to assist programme management teams to identify relevant sociocultural norms or influences in order to optimize gender mainstreaming strategies. These individuals are drawn from the partner country and have sufficient experience to understand social norms, customs, socio-economic issues, and policy matters.

With respect to TVET, the selection of available courses, the quality of outreach and marketing efforts, the quality of training materials and pedagogical methods, the personal attitudes of teachers/instructors and the existence of a safe learning environment, are crucial aspects to increase the enrolment and retention of women in TVET programs. Gender equality is usually mainstreamed through investments in staff development that encourage teachers/instructors to challenge stereotypes and provide female learners with learning opportunities equal to those offered to boys (e.g., access to workshops and demonstration materials). This is supported by a range of measures that include:

i) analysis of curriculum development, to ensure that TVET institutions offer a broad range of curricula, including those that include specializations women are interested in as well as those leading to non-traditional occupations for women;

ii) review of programs and delivery modes to ensure gender equality and development of teaching materials that depict both men and women

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20 Global Affairs Canada defines gender mainstreaming as “a strategy to assess the implications for both men and women, of any planned actions, policies or programmes in all areas and at all levels. This approach recognizes the need to take social and economic differences between men and women into account to ensure that proposed policies and programmes have intended and fair results for women and men, boys and girls.” See http://www.international.gc.ca/rights-droits/women-femmes/mainstream-integration.aspx?lang=eng.
exercising the profession, use neutral language and eliminate hidden assumptions regarding gender roles;

iii) the development of curriculum modules on the gender dimensions of entrepreneurship promotion and environmental protection and the embedding of these linkages in the curricula, and;

iv) gender-sensitive outreach and marketing efforts that are designed to attract both sexes to the curricula on offer.

In many developing countries, donors assist schools and education systems to develop gender policies, gender strategies or gender action plans that outline what and how gender equality will be mainstreamed. Typically, plans include a combination of the above-mentioned strategies. Practical measures are also developed alongside these broader strategies. In one project in the Philippines, women were directly involved in designing school uniforms and procuring appropriate safety protection gear. Practical measures such as these were developed along with capacity building approaches such as providing training to gender focal points or administrative units so that they could implement a gender action plan.21

Career counselling provided by female counsellors has proved to be an effective instrument to guide young women towards a broad range of occupational skills and can help to identify inaccurate and incorrect stereotypes.22 Career counselling can establish linkages with teachers and parents to support and generate enthusiasm among girls for TVET, helping them to explore non-traditional and new occupational choices including “green technologies.”

Other commonly used strategies to increase young women’s interest in TVET include career fairs, open days in training centres and companies, scholarships, awards for successful women in non-traditional occupations, and the involvement of Alumni Associations, especially where female members accept to act as gender champions and role models. However, experience has shown that these are not enough to counter deeply ingrained social beliefs about what constitutes appropriate work for men and women. Further investments are thus required to increase social acceptance of women’s participation in TVET.23 These may include a wide range of measures including awareness campaigns targeting parents and communities, meals at schools, flexible tuition hours, safe and female-friendly transport, and measures to recruit and retain female instructors.


22 Caroline Fawcett and Sarah Howden, Gender Issues in Technical Training and Vocational Education Programmes in Latin America and the Caribbean, Nº WID-103 (Washington DC, 1998).

While each of these measures has its merits, certain levers are beyond the reach of individual TVET schools: government support for broader sensitization efforts plays an important role in strengthening school-level measures. Individual TVET institutions can conduct outreach campaigns but these will have a much greater impact if they are supported by government-led, nation-wide campaigns (see the example from Bangladesh discussed below). The media can also help to challenge stereotyped expectations. This creates an opportunity for government to lead work with the media as part of its engagement of stakeholders working towards the implementation of national policies for gender equality.

Improvements in staff training, curriculum development and guidance counselling must be complemented with efforts to ensure that gender equality is part of the governance of TVET institutions and that the institutions offer a safe and welcoming environment to women. One relatively straightforward way to ensure the latter is through audits or inspections of physical infrastructure (e.g. separate bathrooms, proper lighting to ensure safety at night, designing the physical lay-out of laboratories so that they provide equal mobility for male and female learners, availability of step ladders for women to reach materials on high shelves etc.).

The institutionalization of policies to eliminate sexism, harassment and violence in both the learning environment and work place is an equally important approach. At a minimum, instructors and managers are required to attend training on gender awareness, harassment prevention and equal employment opportunities. Harassment prevention policies and grievance mechanisms also help to reinforce the process of institutionalizing gender equality.

Gender equality promotion cannot be the sole responsibility of the gender focal point or gender unit appointed to lead the implementation of the gender action plan. Successful interventions require the concerted action of the school directors, senior management, teachers and students. For that reason, many programs adopt comprehensive sensitization activities to create awareness of the importance of gender equality among all these stakeholders.

Finally, while some donor supported projects have set partnership-specific targets for gender equality, some governments have instituted national gender targets. In Bangladesh, the National Skills Development Council and ILO successfully advocated for the following targets:

i) increase of women’s participation in TVET from 24% to 40% by 2020;
ii) increase of the quota for female teachers in TVET from 13% to 30%, and;
iii) a minimum 10% quota for women in TVET management.24

Although the cost of quotas is high, implying significant investments in female teacher training and management skills development, encouraging results in reducing occupational segregation have been observed in one case study. The impact may be even more pronounced when combined with financial support for female learners, as

was done in a TVET project in the Philippines.\textsuperscript{25} To improve the performance of female learners and reduce the female drop-out rate, student support services and various types of socio-economic support such as child care facilities and support classes in science, technology, engineering and maths are sometimes made available.\textsuperscript{26}

**CANADA’S COLLEGES AND INSTITUTES AND THE **\textit{EDUCATION FOR EMPLOYMENT}** APPROACH TO TVET CAPACITY BUILDING**

Canadian colleges, polytechnic institutes and Cégeps draw on the unique features of Canadian technical education and training to help build TVET capacity in Latin America, the Caribbean and Africa. This work has been done in part through development projects set up by Colleges and Institutes Canada (CICan) known as \textit{Education for Employment}, and with Canadian government development assistance funding. CICan works with government, private sector and civil society partners in developing nations to identify the key TVET reforms sought by such partners and to develop comprehensive projects where Canadian expertise helps bring about change in public policy, national qualifications systems, pedagogy and teaching quality, program and curriculum development, student support services, instructional equipment and leadership and management ability in TVET institutions. Canadian colleges and institutes provide the lead technical expertise and collaborate with partner institutions in developing countries to bring about these changes. Such partnerships are currently active in the CARICOM Caribbean nations, throughout Latin America and, in Africa, in Senegal, Tanzania, Kenya and Mozambique.\textsuperscript{27}

Like their counterparts in developed and developing countries alike, Canada’s colleges and institutes have long sought to address the barriers women face with respect to access, retention and completion in science, technology and engineering programs. A 2015 parliamentary report noted the persistently low levels of Canadian women’s participation in these areas. But it also took note of considerable innovations in the education sector designed to address these issues. Programs and promotions geared towards women who might want to enter technology and trades training are not uncommon on Canadian college campuses.\textsuperscript{28}

\textsuperscript{25} Improving the Participation of Female Students in Formerly Male Dominated TVET Programmes: the experience of selected colleges and technical schools in the Philippines, UNEVOC, 2010 - Case studies of TVET in selected countries nº 3. See URL: www.unevoc.unesco.org/fileadmin/user_upload/docs/CS3_Philippines_Women.pdf.


\textsuperscript{27} For further information consult the CICan website at: https://www.collegesinstitutes.ca/what-we-do/international/education-for-employment/. It should be noted that the practices referred to in this section are drawn mostly from two Education for Employment projects, one with the Caricom region and the other with the Andean countries of Bolivia, Colombia and Peru; these two initiatives are at a mature stage of implementation and more data is available for these as compared to other Education for Employment projects.

Canada’s public TVET sector has considerable experience facilitating women’s participation in TVET; colleges and institutes have adopted a number of approaches to address barriers that are similar to those that women in developing countries encounter when dealing with TVET systems. Through their international work, Canadian TVET institutions have acquired considerable expertise promoting women’s participation in TVET systems in different countries.

CICan’s EFE projects integrate gender equality across all areas of intervention, including teacher training and pedagogy, adapting training materials to promote equal participation by men and women, reviewing national policies and integrating gender equality into environment and entrepreneurial modules during training delivery.29 For example, 12 institutional partnerships in the CARICOM Education for Employment Program (C-EFE) are helping schools put in place policies and other mechanisms to promote gender equality. This usually begins with the creation of a gender committee or gender focal point that drives and oversees the implementation of a gender strategy, gender policy or gender action plan developed in collaboration with partner Canadian colleges and institutes. Such institution-level committees can also play an active implementation role as well; in CICan’s Education for Employment project in Senegal, fourteen partner technical schools use local gender “cells” as service delivery units to help orient and counsel young women on their studies and career paths.

Some technical partnerships have agreed to specific targets or negotiated a specific agreement to include women in management structures. For example, the partnership between Lakeland College and the Belize University Farm Campus put in place an institutional gender equality policy, set recruitment targets for the newly created demand driven agricultural program and produced targeted recruitment videos aimed at female students. In addition to measures to mainstream gender equality into the curriculum development process, the guidelines help mainstream gender equality into such institutional partnerships through the inclusion of gender expertise, the joint analysis of labour market requirements and the inclusion of gender equality indicators in program monitoring and evaluation.

Financial support for female students in the form of bursaries can help to overcome inequities of women’s access to technical education and training. In CICan’s Education for Employment in Senegal,30 several partner institutions have implemented bursary programs for female students. Additional supporting measures were also put in place to secure better access and participation. In the Lycée technique industriel et minier de Kédougou, the school established a quota system for its electromechanical technician diploma program which, in combination with financial support, facilitated the recruitment of women into what was previously a males-only academic program. At the Lycée technique André Peytavin in Saint-Louis, the bursary program for women in the

29 The information presented here refers to CICan’s Education for Employment programmes currently being implemented in Bolivia, Colombia and Peru (Andes Programme), 16 Caribbean nations (CARICOM), Senegal, Tanzania and Mozambique as well as the Mulheres Mil programme in Brazil. The findings described in this section are compiled from the individual country briefings submitted to CICan for the purpose of this review.

30 Essor du secteur privé par l’éducation pour l’emploi, see URL: https://www.collegesinstitutes.ca/fr/centre‐des‐nouvelles/communique‐de‐presse/cican‐lance‐un‐nouveau‐programme‐au‐senegal/.
agricultural equipment technicians program is complemented with a guaranteed internship placement in a firm in Northern Senegal.

Education marketing campaigns developed within the Education for Employment approach often focus on gender equality and women’s inclusion, and the technical partnerships between Canadian and local institutions explore new ways to encourage men and women to enter non-traditional occupations that challenge the existing gender stereotyped division of labour. CICan’s “Skills Training for Employment in Mozambique” program is targeting increased enrolment and decreased drop-out rates of young women through an outreach campaign aimed at young women and men and their communities in and around the partner institutions. The objective of the campaign – which involves outreach activities, sports tournaments, theatre groups, and visibility campaigns in the communities with specific gender equality messaging – is to encourage young women to consider non-traditional educational fields by addressing and challenging the attitudes and perceptions of women and men in their communities. Because these marketing campaigns require significant reach, developing such campaigns at the Ministerial level helps reach audiences on a national level. In Senegal, CICan’s Education for Employment project assisted the TVET Ministry in developing and implementing a nation-wide campaign to recruit women into technical trades.

Achieving gender balanced enrollment is not necessarily a question of attracting more women into non-traditional occupations. Some Education for Employment partnerships have also developed curricula in areas that men are reluctant to enter as these occupations are perceived as being feminine and leading to less well paid jobs. An institutional partnership between Vancouver Island University and YTEPP Limited in Trinidad and Tobago developed a cosmetology program with a strong focus on engaging men. The partnership has woven options tied to opening and working in barbershops into its training to reach out to young males. In Suriname, Selkirk College collaborated with a local institution, COVAB, to create a Geriatric Nursing program. The partners conducted research to understand why males appeared not to be interested in jobs in the health care sector. The results of this research informed the project partners’ relationships with employers in Suriname and the development of traditional and social media recruitment campaigns. And Toronto’s Seneca College, in partnership with Sir Arthur Lewis Community College in St. Lucia, has developed an Early Childhood Development program with the goal of recruiting at least one male per training cohort during the life of the partnership. In January 2016, the program welcome a cohort of 4 women and one male, and recruitment has been completed for a September 2017 cohort with another 14 women and one man.

Education for Employment partnerships between Canadian colleges and institutes and TVET institutions in partner countries have adopted several promising approaches to attract men to these courses. For example, attention was paid to infrastructure design (e.g. the Centre for Cosmetic Excellence in Trinidad & Tobago has separate bathrooms for men and women and the exterior of the mobile unit portrays both men and women at work). A promising approach is thus being tested and is generating interest among male entrepreneurs by linking these “feminine” occupations to their existing business as added value services (e.g. barbers can offer cosmetic services, men can run crèches as a business).
Such partnerships provide a practical standard for gender mainstreaming which can be integrated into the *Education for Employment* approach that focuses on capacity building for local schools and government as well as civil society stakeholders. For example, in Bolivia gender training was provided to ministerial staff and decentralized education authorities. Local women’s associations were involved in an analysis of the labour market, and women from the community were involved in dialogue with the Ministry of Education, technical training institutes and municipal authorities. The approach adopted in these programs covers all the prescribed strategies: adapting curricula and training materials, developing gender modules for teacher training, creating gender sensitive marketing materials, designing new models for women’s entry into non-traditional occupations, sensitizing employers, and providing gender supportive counseling and placement services.

Based on the *Education for Employment* project experience, it is not yet possible to make definitive conclusions about whether systematic gender mainstreaming is enough to achieve women’s increased participation in reformed TVET programs. Aside from the fact that many of these partnerships are still active, it is likely that additional support measures are required to mobilize a wider section of society in support of women’s access to TVET in general, and non-traditional occupations in particular, as well as to increase social acceptance of women’s participation in key careers, including opportunities in the emerging “green economy.” Civil society groups, individual gender champions and role models, employers, community representatives and decentralized authorities all have specific roles to play.

CICan’s *Education for Employment* projects could also benefit from additional support to carry out gender audits with local partner schools at project’s end to determine the extent to which mainstreaming has been effective and paid “gender dividends.” This will not only help collect information to assess program performance, but as the gender audit is essentially a participatory process led by the beneficiary institution, it can also help consolidate program results and sow the seeds for future partnerships with civil society to improve men and women’s social acceptance of new TVET programs and curricula, and pathways to the labour market.

These institutional partnerships have also yielded significant lessons about the best approaches to implementing gender equality measures. In an institutional partnership between Canadore College and T.A. Maryshaw Community College in Grenada, CICan observed that partners devoted considerable attention on the initial work of reviewing training documents to introduce gender neutral language. The targeted recruitment of female teachers and students via traditional and social media was deferred to later in the project, which may have reduced the amount of time available to significantly affect the gender balance of students and faculty.

CICan also concluded that aiming for gender neutrality is not enough to attract women into occupations which are perceived to be ‘male.’ In two other partnership projects, one between Sault College and Samuel Jackman Prescod Polytechnic in Barbados, and another between the College of the North Atlantic and Antigua State College, partners concentrated on gender mainstreaming for newly developed programs, but scheduled the development of gender policies and procedures too late into the program to have
a real impact. Without policies to guide recruitment and relationships with employers, the results were positive but fell short of the desired gender equality outcomes.\footnote{In Antigua 4 women and 22 men were recruited to the Aircraft Maintenance program and in Barbados 5 women and 64 men were recruited into the Solar Installation program.}
“MULHERES MIL”: GENDER-FOCUSED TVET IN BRAZIL

*Mulheres Mil* (A Thousand Women) began in 2005 as a collaboration between Canada and Brazil to build the capacity of Brazilian Federal Institutes to assist marginalized women in Brazil. It helped them access job-specific training in order to enter the formal workforce, or to strengthen their entrepreneurial activity, thereby improving their well-being, enhancing national economic development and increasing their participation in the political process.

The initial goal of the project was to provide vocational training to 1,000 women in the North and Northeast regions of Brazil to improve their quality of life and remove them from their position of vulnerability. The recognition of informal experience and previous studies was a key factor in the project’s implementation and was reflected in the selection criteria for participants. Prior Learning Assessment and Recognition (PLAR) methodology became vital for assessing women’s knowledge and building self-esteem. Canadian Colleges have used PLAR for decades; in *Mulheres Mil* they worked with their Brazilian counterparts to share and adapt this methodology to the Brazilian reality. This methodology allowed Federal Institutes to validate and certify the knowledge participants gained throughout their life.

The results of the project proved so successful that Brazilian President Dilma Rousseff approved it as a national program, with a goal of training 100,000 women by 2014. To do this, Brazil committed nearly CAD $6 million from 2011-2014 to the program. The program has had a significant impact on participants by helping them discover their citizenship, restore their self-esteem, and improve family and community relations.

Based on the success of the national Mulheres Mil program, in 2014, it was once again scaled up and even integrated into a national qualification program (PRONATEC) run by the Ministry of Education.

Since Mulheres Mil was designed as a women specific project, all of the project resources were directed to addressing the barriers to women’s entry and retention in TVET. This is a different approach from programs that lack a gender-specific focus, even though they may adopt effective mainstreaming strategies. For “mainstreaming” programs, the challenge is to consistently monitor progress towards gender equality and feed that data back into program strategies. This requires both targets and a very flexible approach. In order to ensure the sustainability of the results achieved during the program’s lifetime and ensure that there is greater social acceptance for women’s participation in new curricula, it is critical to invest in continued capacity building as well as advocacy skills for the gender focal points and/or institutional mechanism that

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34 See URL: http://www.brasil.gov.br/educacao/2012/04/presidenta-afirma-que-programa-mulheres-mil-e-estrategico-para-o-pais. According to the project Final Impact Assessment Technical Report (see preceding footnote), the “goal articulated by Pronatec General Coordinator of Development and Monitoring programs, Milva Schroeden, during a videoconference at the Bento Goncalves campus of Instituto Federal do Rio Grande do Sul in March, 2014 was to reach 8 million women across 4,000 municipalities through this integrated program. The experience from Mulheres Mil was seen as foundational to the roll-out of Pronatec, and also as fundamental for Pronatec to reach its goals.”
promote gender equality and ensure that they can lead a wider process that is not limited to the school but that can also secure the buy-in of employers, female entrepreneurs, civil society and communities.

Mulheres Mil is an example of a successful, gender-focused TVET project aimed at providing education for employment and addressing poverty reduction for marginalized women. Specific measures were built into the project to reach economically excluded women and to address important skills deficits that resulted from this inclusion. Mulheres Mil is also an instructive case study because it provides a potential model for a larger scale-up of initially successful project results.

EDUCATION FOR EMPLOYMENT PROGRAMS AS A STRATEGY FOR WOMEN’S EMPOWERMENT

Gender mainstreaming strategies ‘tick all the right boxes’ with respect to development programming in TVET that is concerned with gender equality and women’s inclusion, but much more needs to be done to create, or make visible, the linkages between TVET and women’s empowerment.

Training must be used not only to increase women’s income and diversify their livelihood, but should also be a way to address women’s strategic gender needs; that is, training should be a means for women to broaden their occupational choices and thus break through unequal gender relations and improve their status in society. Training and education can encourage young women to see themselves as citizens and rights holders, and to claim their rights from duty bearers. In the same way that life skills and job readiness skills are routinely provided to graduates in donor-supported TVET initiatives, modules based on the human rights perspective and measures to raise women’s self-esteem and confidence should form part of any intervention.

Linking TVET to women’s empowerment should be supported by a longer-term policy or vision. In TVET systems undergoing reform, this may require a sustained investment in capacity building for gender focal points or gender units within institutions as well as Ministries and national training agencies. CICan’s Education for Employment programs have a good entry point as they work at both the institutional (school) level on implementing TVET reform, and at the policy level with national authorities. To obtain a longer-term commitment on the part of local partners to build on the results
BRAZILIAN PARTNERS REFLECT ON THE MULHERES MIL PROGRAM

“The women participating in the project, who are the protagonists of real stories and experiences of failure, reflect the majority of Brazilian women of low income. Behind motivations that seem to be individual, there are actually numerous social, economic, and political barriers. From a very early age, their lives have been plagued by a lack of opportunities and family support. Citizenship, rights and opportunities were viewed as a distant dream far removed from the obligations and duties of an honest life. Getting to know these women, visiting their community(s), contacting leaders, discovering ways of life, cultural practices and activities, identifying issues affecting the community, and how the people of that place deal with them, were all things that helped me to make students’ everyday experience a fundamental part of the classes.”

Monica Monteiro, Project Manager Mulheres Mil, State of Paraíba

“It was a rich experience for the [Federal Institute of Bahia]. First, bringing these women into the Institution was good because we experienced a different world; he had lived very different experiences, even pedagogically speaking. The methods we applied were completely different from our usual teaching methods. This [Prior Learning Assessment and Recognition] method teaches us much more about what we are teaching to [the women who participate] and each one brings her unique experience. So for us, it is very enriching. Everyone who participated in the project directly, who gave lessons, said the same thing: how rich it was to have as partners such people, coming from a poor neighborhood, with experiences completely different from ours. This was very important to the Institute as a whole and was very important to those people who participated in the project.”

Aurina Oliveira Santana, Chancellor Instituto Federal da Bahia (IFBA)

“As time went on, we obtained a scholarship for some of the students, and built and acquired the kitchen-laboratory equipment, through a partnership with SENAC. However, the greatest achievement was the students’ victory. We trained the first cohort, dropout rates were low, and many entered the job market. Today, we have trained the third cohort; 78% of our graduates have a formal work contract or have their own business. The project was expanded to another campus, the Historic Center, which offered crafts training, and we have partnered with several companies that now employ some of our students.”

Maria Tereza Fabbro, Project Manager Mulheres Mil, State of Maranhão

“This program is teaching us that, many skills and competencies are acquired through life, but in a non-formal way, and we need to take advantage of these in professional and technological training. Canada has already made great strides in this area. It is a country which is capable of understanding, in a much broader way, and certifying the skills of people who come to their institutions. This learning is the great legacy we have gained in the process. It helps to structuring the [Federal Institute of Ceará] which, in its principles and guidelines, has precisely this goal of addressing the population’s problems and seeking a deeper contact with the local realities where each of the Institute’s units is active.”

Claudio Ricardo Gomes de Lima, Chancellor Instituto Federal do Ceará
of gender equality measures pilot in technical partnerships in TVET, there is of course
the question of who will finance such long-term activities and ensure that gender focal
points and units have what is necessary to continue to implement change. In a
decentralized TVET system, CICan’s Education for Employment projects might envisage
strengthening schools’ capacity to mobilize or negotiate funding for gender equality
from local, provincial or national state authorities and help schools develop appropriate
models for establishing public-private partnerships with key labour market partners.
Alternatively, where funds are mobilized through the government at a central level, it
may be appropriate to advocate models for public financing of gender equality in TVET
following the example of countries like the Philippines where all public TVET institutes
are required to allocate 5% of their budget to finance their gender action plans. In
countries like Senegal and Tanzania, there is a further opportunity to encourage national
partners to consider how gender equality may influence the design of training levies on
employers. In the STEM project in Mozambique, CICan has committed to allocate a
minimum of 10% of funding to achieve gender equality results.

Finally, it is essential that interventions, even in relatively circumscribed thematic areas
such as TVET, take steps to address the larger context of what a recent opinion piece in
Canada’s Globe and Mail newspaper calls “pernicious beliefs and practices that harm
both men and women, as well as girls and boys.” The piece evokes extensive prior
experience in development projects in a range of sectors in cautioning development
practitioners against approaches that attempt to empower women and enable them
to advocate for their rights and needs without considering how empowered women
may fare in an environment where men’s and women’s hold on to misogynistic or
patriarchal views.35

TVET reform initiatives may fail to produce desired outcomes for women if they overlook
this problem. In the absence of information and awareness, parents may be more likely
to prevent daughters from entering technical education streams. Male teachers and
students will reinforce an unwelcoming environment particularly in training programs
in which women are typically absent or poorly represented. Women graduating from
TVET programs may have a difficult time integrating into workplaces where employers
may be either unaware of potential barriers that women may experience or unwilling
to consider their role in communicating with other workers about creating a welcoming
workplace. In response, CICan’s Education for Employment projects and the Mulheres
Mil project in Brazil anticipate and develop measures to extend complementary training
and awareness raising to men. In Mulheres Mil, for example, many of the partner federal
institutes became involved in community-level awareness campaigns aimed at
changing the attitudes of male spouses and other men in the community with respect
to women’s participation in training and the workforce.36

35 Valerie Percival and Tammy Maclean (2017), “There’s an important role for men in women’s equality,” Globe &
Mail, March 9, 2017. Accessed online at URL: http://www.theglobeandmail.com/opinion/men‐have‐a‐role‐in‐
womens‐equality/article34254478/?service=print.
SUPPORTING BETTER LABOUR MARKET TRANSITIONS AND OUTCOMES FOR WOMEN

Over the last 25 years, the labour force participation rate for women relative to men has seen some significant improvements across the globe, with some notable increases in Latin America, the Caribbean and Sub-Saharan Africa. Nevertheless, young women’s labour force participation has remained significantly lower than men’s participation rates even as primary and secondary completion rates have converged towards gender parity in many countries—a testament to the multiple, cumulative barriers that women face.

Although increasing numbers of women are pursuing TVET, this has not necessarily led to better labour market outcomes for young women. Women’s labour force participation is often limited by employer biases, workplaces ill equipped to receive or welcome women and other employment related factors. Silent stereotyping exists within many employing organisations which limit women’s recruitment and career prospects. In developing countries, part-time and flexible working hours, job sharing, child care, transport etc. are generally not provided by employers for employees with child rearing responsibilities due to a lack of legislation regarding the provision of such facilities. Legislation concerning night work, shift work and other types of hazardous and/or strenuous physical work is designed to protect women but often acts as a barrier to their employment opportunities in technical occupations.

Women also face significant difficulties in generating self-employment or starting their own business due to time constraints, lack of appropriate financial instruments for investment and operational costs, limited information and access to productive assets. Although several initiatives have been launched that successfully provide women with business development skills both before and after graduation, many women remain unable to expand or formalize their business due to a variety of material and cultural factors. The consequences of women’s predominance in the informal economy are well documented and serve to entrench the division of labour.

It is therefore important that TVET interventions, particularly capacity building projects where a broad range of measures are put in place as part of a single initiative, pay careful attention to the school-to-work transition to ensure that the increased access for women occasioned by TVET reform does not end in frustration for skilled women attempting to find work. Current international practices to improve labour market outcomes for female TVET graduates focus on:

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39 For example, in Mozambique women are excluded from night shifts and in the Philippines, Republic Act Nº 6237 states in Section 7(a) that no woman, regardless of age, shall be employed in any workshop, factory, commercial or industrial establishment or other place of labour to perform work which involves lifting heavy objects. Clearly, this is not about maternal protection as it also applies to women older than reproductive age but about segregation of the labour market and has encouraged women to go into textiles and electronics where employers prefer women on account of their “nimble fingers” and presumably lower wages.

i) building strong linkages with employers to educate them and to support female learners;
ii) building linkages with general education and other forms of tertiary education, and;
iii) providing support for female graduates who opt for self-employment.

Considering that employers’ attitudes are critical to dismantle gender stereotypes in the labour market and workplace, efforts have been made to build employers’ confidence in the competence of female learners. Experience shows that it is important to engage employers early on, such as in the definition of eligibility criteria for apprenticeship candidates.

In Pakistan, female learners could show their sewing and designs to local textile factories throughout their training and as part of the selection process for apprenticeships. Employers’ familiarity with the learners’ work frequently resulted in offers of employment. In Chile, women’s demand for practical experience has been stimulated by supporting women’s groups to dialogue with employers and encouraging female entrepreneurs to accept female apprentices. Employer commitment is secured in a written undertaking to take on at least 80% of learners enrolled as interns.

The *Chile Joven* job training program combined skills training in the classroom with modules on life skills and job readiness, followed by an internship in the private sector, which allowed learners to gain practical experience and employers to assess the learners’ performance. Companies retained a high percentage of graduates after the internship, especially women, and offered them jobs with proper contracts, benefits and social security. Following the positive results of the program, *Chile Joven* is now replicated in several other Latin American countries. Maintaining an open dialogue with employers has thus proved to be an effective strategy to increase women’s employability, allowing employers to assess the value and benefits of the women’s apprenticeship for employers as well as for learners.

There is good evidence that practical experience is important to the success of TVET programs and that good demonstration facilities in-school should be complemented by internships or apprenticeship out of school. This in turn warrants further piloting and evaluation of work-based learning approaches and their impact on women. Such approaches should address challenges like how to integrate practical experience in the curriculum, taking into consideration women’s limited time availability due to their triple work burden.

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43 Ibid.
Canada’s colleges and institutes have years of experience in supporting experiential and work-based learning. They understand very well how such learning approaches can best be used, how they can be enriched through appropriate pedagogic interventions and practices, and how to ensure that they are engaged with effectively by employers, other workers and learners. Outside of apprenticeship arrangements, effective student learning through workplace experience requires supportive organizational arrangements within the school (for example timetables, teacher working conditions), appropriate policies to support workplace experience, and sufficient resources for program monitoring and evaluation.

To improve demand for TVET, countries like the Philippines have improved the articulation with the rest of the education system and built pathways, both to facilitate entry into TVET and enable learners to continue their education after graduation. The experience in the Philippines shows that this strategy, in combination with other support measures such as scholarships and financial subsidies, has resulted in increased enrolment rates, especially among female learners.

It also highlights the importance of harmonized policies and qualification systems. Learners, as well as employers, may be motivated by well recognized international standards and it is important to develop systems for the recognition of competencies and portability of TVET qualifications. Through CICan’s Education for Employment programs, Canadian institutions have contributed to the development of prior learning assessment and recognition (PLAR) models in the Mulheres Mil pilot program, the 12-country program with the CARICOM nations, and in other country projects as well. This accumulated (and accumulating) knowledge could be further used to help other countries develop appropriate PLAR for women who have already acquired some practical skills in both formal and informal settings.

To assist female graduates interested in starting their own business, various measures have been developed. With the support of the ILO, the National Employment Services of Albania launched an integrated strategy in 2011 combining business training and support to develop a business plan using grants as a form of start-up capital. As part of Oman’s drive to diversify the economy, young men and women are encouraged to create small and medium enterprises in non-oil sectors, resulting in a significant number of women entrepreneurs. In particular, 53% of the beneficiaries of the Intilaaqqah program are women who have started businesses providing services such as the tailoring of dresses, photo and video shooting in wedding parties, the sale of ready-


46 Improving the Participation of Female Students in Formerly Male Dominated TVET Programmes: the experience of selected colleges and technical schools in the Philippines, UNEVOC, 2010 - Case studies of TVET in selected countries n° 3. [www.unevoc.unesco.org/fileadmin/user_upload/docs/CS3_Philippines_Women.pdf](http://www.unevoc.unesco.org/fileadmin/user_upload/docs/CS3_Philippines_Women.pdf).


made garments, beauty salons and health clubs.\textsuperscript{49} While women’s businesses are small and related to the service sector, this and other similar initiatives in Yemen have shown women’s interest in developing a professional activity, even in a socially conservative environment.\textsuperscript{50} To assist female graduates who lack the capital outlay to start their business and have difficulties in accessing loans, the government of Zambia has, since 2008, supplied graduates with toolkits, on the condition that they first attend workshops on business development skills, submit a business plan and form a company.\textsuperscript{51} To respond to the continued training needs of business enterprises, many TVET institutions in Kenya have relationships with small business centres (SBCs) that provide free advisory services to a large number of female small-scale entrepreneurs.\textsuperscript{52} To adopt such an integrated approach, beneficiary institutions may need to establish strategic partnerships with micro credit institutions and other service providers to finance the provision of tool kits.

CICan’s Business Development Support Services Project (BDSSP) in Egypt adopted a market development approach and worked across sectors to address the needs of the Small and Medium Size Enterprises (SMEs) for business advisory services. The project provided leadership and guidance to local partners to raise awareness, understanding and coaching and implementation support to the project team and the BDS providers. The project supported women in realizing their economic potential by tailoring interventions to address their needs as entrepreneurs, managers and employees. BDSSP also built the capacity of BDS providers in order to respond to the needs of women entrepreneurs.

CREATING OPPORTUNITIES FOR WOMEN IN THE SUSTAINABLE ECONOMIC GROWTH AGENDA AND EMERGING SECTORS

The ever-increasing need for countries to adopt pathways to economic growth that take sustainable development and climate change into account places further demands on skills development systems in developed and developing countries alike. Building skills capacity in education is more important if the local impacts of climate change are likely to require local solutions to adapt to or mitigate these impacts. This presents some formidable challenges for education systems in developing nations, which often struggle to secure the resources necessary to maintain and improve the status quo of education and training supply.

Therefore, whether TVET can improve labour market outcomes for female graduates by facilitating their transition towards employment in green and circular economies, and by enabling them to acquire the required technical skills, values and attitudes, is an

\begin{footnotesize}
\textsuperscript{49} Entrepreneurship Education, Oman.  
\textsuperscript{51} TEVET Graduate Empowerment Toolkit Scheme, Zambia.  
\textsuperscript{52} Entrepreneurship Education as a Tool to Support Self-Employment, Kenya.  
\end{footnotesize}
increasingly important question. It is not clear how easily developing country partners will succeed in the fight for resources to support education initiatives that target the intersection between gender equality and sustainability.

Nevertheless, facilitating women’s access to green technology would be an important way to strengthen their already existing role as agents of change in the stewardship of natural resources and in climate change adaptation and mitigation. Developing skills for new, environmentally sensitive solutions for improved food production, water supply, sanitation and energy security may well prove to be an effective strategy to attract higher numbers of women to TVET. Not only are these environmentally sensitive technologies of relevance to women, who are especially affected by environmental degradation, but including women’s traditional and indigenous knowledge in the development of environmentally sensitive technologies can enhance both their effectiveness and social acceptance.

There is thus a unique opportunity to attract women into new technologies especially those related to renewable energies and agri-business development as these are relatively new and can therefore still be “recast” as gender neutral occupations. Intervention will be required quickly, because if left unattended, these areas are very likely to be subsumed in the typically male occupations. For example, an institutional partnership project between St. Lawrence College and the National Tool and Engineering Institute in Jamaica suggests the need for a managed and targeted outreach campaign. Only 2 women, compared to 68 men, enrolled in the training programs offered for new careers in renewable energy.

Future TVET initiatives, such as those based on an Education for Employment approach could and should identify ways to integrate women’s traditional and indigenous knowledge in environment modules and to embed this knowledge in curricula. Women in communities that host CICan’s Education for Employment projects, in countries like Bolivia, Colombia, Peru, Tanzania, Senegal, Mozambique, Kenya and the Caribbean hold valuable information that can be used to enrich curricula, support applied research and develop outreach activities to young women. Capturing and integrating such local environmental knowledge require strong linkages with the community, implying both a need and opportunity to engage with civil society partners such as women’s organizations, community wisdom keepers, and environmental organizations.

CICan’s Education for Employment project in the Andean region covering Bolivia, Colombia and Peru, highlights the importance of making environmentally sensitive technologies available to female learners and graduates. In Peru, gender equality and environmental issues are explored in entrepreneurship workshops for TVET alumni, and in Bolivia, teachers have been encouraged to attend ongoing professional development on gender equality and environment. The Education for Employment programs thus present good opportunities to establish consultation mechanisms to work with women and integrate their specific knowledge in the curriculum development process and other aspects of TVET programming. Canadian colleges’ and institutes’ extensive expertise in promoting Education for Sustainable Development has been crucial to the

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success of such programs; but these contributions represent a fraction of their capacity and capabilities in this area.54

THE ROLE OF TVET INSTITUTIONS IN PROMOTING WOMEN’S SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS

This review would not be complete without paying some attention to the question of how TVET interventions intersect with questions of women’s sexual and reproductive health and rights. There are, in fact, two significant ways in which these questions interact.

First, women’s participation in post-primary education and education leading to employment correlates significantly with better outcomes in terms of women’s sexual and reproductive health and rights.55 There are numerous reasons that these correlations are observed, and these relate to a host of factors linked to the intrinsic benefits of education, participating in the formal economy, income effects, financial autonomy and psychosocial benefits.

Secondly, lack of access to adequate sexual and reproductive health services is a barrier to women’s access to post-primary education,56 and plausibly, to women’s retention and completion of secondary education. Therefore, the TVET setting, including the TVET institution as a physical space has an impact on questions of women’s access to education and sexual and reproductive health and rights, either because it maintains physical, behavioural or administrative barriers, or because it plays a positive and active role in respecting and promoting sexual and reproductive health and rights. Indeed, the evidence that schools are an ideal setting for promoting sexual and reproductive health is quite strong,57 and there is good evidence from across the developed and developing world of the various interventions available to effect change in this area. They range from changes to physical infrastructure (e.g., washrooms and dormitory facilities), to educational interventions (e.g., public health education, integration of concepts of health and rights into curricula and pedagogy, awareness raising with faculty and administrators) and policies (such as those related to harassment and school safety, along with mechanisms for enforcement).58

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54 The Canadian TVET sector’s contribution to developing skills for the Green Economy is extensively documented in CICan (2016), Green Skills for Sustainable Economic Growth: The Role of Canadian Colleges and Institutes in Advancing Education for Sustainability in Canada and Overseas. URL: www.collegesinstitutes.ca/file/green-skills-for-sustainable-economic-growth/.


56 Ibid.


CICan’s *Education for Employment* projects have had some exposure to integrating education and awareness of sexual and reproductive health and rights into the capacity building activities they develop with their TVET partners in developing countries. The Caribbean *Education for Employment* project developed a pedagogical manual related to Gender in TVET which includes modules with learning activities related to this issue. For example, instructors are provided guidance on activities that encourage students to “review the occupational health and safety policies of a selected company and comment on the gender aspects of the policy.”\(^{59}\) CICan’s project, *Skills Training for Employment in Mozambique*, produced school agendas themed around messages about health, sexuality, nutrition, family planning, and domestic violence; these will be distributed to students at partner TVET schools.

However, CICan’s *Education for Employment* projects have the capacity to pilot more—and more active, rather than passive—measures with respect to promoting women’s sexual and reproductive health and rights. The key to doing this successfully is to ensure that the expertise of Canadian colleges and institutes in this area is used to develop programming in collaboration with local expertise in partner countries. The role of local project gender equality advisors responsible for developing project gender equality strategies, and gender focal points within collaborating schools, should not be underestimated. Nor should TVET capacity building projects ignore the importance of involving female leaders in TVET institution in the policy making process at the school level.

There is, finally, one area for potential innovation with respect to women’s sexual and reproductive health and rights in TVET capacity building initiatives. Because TVET is focused on work-related education and training, and preparing people to transition into the workplace, it is common for educational programs and the institutions that deliver them to integrate content related to Workplace Health and Safety (WHS). Issues related to women’s reproductive and sexual health and rights intersect with WHS issues.\(^{60}\) One need only think of issues such as sexual harassment in the workplace, work-life balance for women recognizing their multiple social roles, and the risks to healthy pregnancy posed by exposure to toxic substances, to understand that the two areas are closely related.

Yet, in the context of TVET capacity building interventions, there appears to be little published research or discussion about how WHS education and training within TVET can best integrate educational objectives with respect to sexual and reproductive health and rights for women and men. In CICan’s *Education for Employment* projects, content around WHS is well embedded in competency-based training pedagogy and curriculum development, drawing on expertise and common practice in Canada’s colleges and institutes. In the context of such capacity building projects, there is an

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appropriate program context, as well as the right Canadian and local expertise, to pilot innovative work.

CONCLUSION & RECOMMENDATIONS

Through the *Education for Employment* programs that support TVET capacity building in developing countries, Canada’s colleges and institutes have built up significant experience mainstreaming gender equality and promoting women’s empowerment in skills development systems abroad. They are well positioned to explore opportunities to consolidate existing gains in initiatives currently under way, and to build upon this knowledge through further stimulation of TVET as a means to address women’s empowerment. This could also be supported by innovative support measures, such as, the integration of gender equality and environment in new curricula, the development of evidence based advocacy and policy development, the creation of strategic partnerships with communities and civil society, and the analysis of new financing mechanisms for gender equality in TVET.

RECOMMENDATIONS

**Targeted Initiatives for Women**

*Education for Employment* projects have made considerable efforts to integrate gender equality as a cross-cutting theme addressed in their TVET capacity building initiatives, and ongoing projects in Africa and Latin America continue to pilot new approaches. The results of programs such as *Mulheres Mil* in Brazil suggest that Canada’s TVET sector can effectively implement women-focused initiatives that deliver significant and lasting results (CICan received expressions of interest from Peru, Senegal and Mozambique to replicate the program). In its submission to the Government of Canada’s International Assistance Review, CICan strongly recommended increased development assistance for TVET capacity building initiatives focused on women, as a part of Canada’s renewed emphasis on gender equality and women’s empowerment. This approach would be consistent with the 2030 Sustainable Development Goals related to both TVET and gender equality.

**Adopting a Variety of Perspectives Including Human Rights**

Economic development and mainstream human capital approaches to the inclusion of women in TVET can co-exist with other perspectives. In the same way that life skills and job readiness skills are routinely provided to students and graduates in donor-supported TVET initiatives, development partners should ensure that modules based on the human rights perspective and measures to raise women’s self-esteem and confidence form part of any intervention. This requires, however, a realistic assessment of the cost of fully implementing a gender mainstreaming strategy if what is being sought is a change in human rights perspectives.
**Securing Resources for Women’s Empowerment and Gender Equality**

CICan’s *Education for Employment* projects might envisage strengthening schools’ capacity to mobilize or negotiate money for gender equality and women’s empowerment from local, provincial or national state authorities and help schools develop appropriate models for establishing public-private partnerships with key labour market partners. Alternatively, where funds are mobilized through the government at central level, it may be appropriate to advocate models for public financing of gender equality in TVET.

**Supporting Women’s Transition to Employment**

TVET interventions focused on women’s economic empowerment must recognize the existence of persistent barriers in employment and in the transition to employment. Comprehensive approaches to TVET capacity building should go beyond the ‘standard’ approaches (e.g., teacher training, program design) and incorporate program elements that lower barriers not only to attraction, retention and completion in TVET for women, but also support women’s transition to employment, i.e., post-completion. While other key actors play a lead role in this transition, TVET institutions are well situated to deliver employment referral services, raise local employers’ awareness of gender issues and provide entrepreneurship support to women. This may also require support to enable TVET institution to establish strategic partnerships with microcredit institutions and other service providers.

**Support for Women’s Access to TVET**

In ongoing discussions with local partners in developing countries with respect to TVET capacity building efforts, CICan notes a potentially unfulfilled demand for bridging, access and pre-entry programs that help increase access to TVET for young women who face systemic barriers, as well as older women who require training or retraining for decent work. Such programs are often anchored on the provision of learning support such as literacy and essential skills training and prior learning assessment and recognition (PLAR) services; the *Mulheres Mil* initiative in Brazil is an example in this respect. Consistent with organizational missions, Canadian colleges and institutes have decades of accumulated experience developing PLAR services and helping disadvantaged learners develop literacy and essential skills. These supports have been incorporated to varying degrees in *Education for Employment* projects and are key complements to the standard TVET building blocks of teacher training or curriculum design. TVET capacity building approaches should include these with a view to achieving specific outcomes for women, and the use of such supports warrant further evaluation research.

**Practical and Work-based Experience**

Practical and work-based experience is essential to effective, contemporary TVET approaches. Canada’s colleges and institutes have considerable expertise in this area and have incorporated this into their TVET capacity-building approach overseas. From

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the perspective of women’s empowerment, these interventions warrant further implementation and evaluation to gauge their impact on women, and answer practical questions. For example: how does practical work-based learning in learning programs affect women’s limited time availability due to their triple work burden.

**Opportunity for Women in the Green Economy and Sustainable Development**

Now is an opportune time to think about how to attract women into areas of TVET where they will become skilled in the use of new technologies, especially those related to renewable energies, green technology and agri-business development, all emerging sectors that can still be cast as gender neutral. Facilitating women’s access to green technology could be an effective way to strengthen women’s already significant role as agents of change in the stewardship of natural resources and in climate change adaptation and mitigation. For the same reason, developing skills for new, environmentally sensitive solutions to improve food production, water supply, sanitation and energy security may well prove to be an effective strategy to attract higher numbers of women to TVET.

**TVET Institutions as a Setting for Promoting Sexual and Reproductive Health and Rights**

TVET institutions are providers of work-focused education and training that allow women to attain economic and social well-being that correlate with better outcomes in terms of their sexual and reproductive health and rights. They are also critical learning environments for transmitting knowledge and instilling values—in both women and men—that contribute directly to such outcomes. With the right skills, awareness and knowledge about how to reach out to employers and the community, TVET educators and leaders can be important agents of change in creating workplaces that are responsive to the sexual and reproductive health needs and rights of women who transition from their schools to their first jobs. To become leaders in this area, TVET institutions may require support in instituting practices, policies and staff training needed to ensure that women’s sexual and reproductive health and rights are respected and promoted actively within the walls of their institutions. Through CICan’s *Education for Employment* approach, Canadian colleges and institutes are well placed to collaborate with local partners to develop appropriate activities and policies in TVET institutions, and have an opportunity to pilot innovative approaches integrating sexual and reproductive health and rights into workplace health and safety training.

**Ensuring Sound Evaluation of Longer-Term Impacts**

Securing the resources and partner commitment for ongoing monitoring and evaluation of the impacts of TVET initiatives on gender equality and women’s empowerment remains a challenge, particularly when it comes to measuring the lasting effects of capacity building projects where impacts may only fully be evident beyond project funding timelines. For its *Education for Employment* projects, CICan should explore opportunities to continue longer-term evaluation with the engagement of local and funding partners. As a part of this effort, local partners may benefit from gender audits of local partner TVET schools at project’s end to determine the extent to which mainstreaming has been effective and paid “gender dividends”. Such measures
could be a part of broader sustainability plans that EFE projects put in place to ensure continuity of results.
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