Women’s participation in WASH-related vocational and tertiary education, and as WASH professionals in Cambodia
List of Acronyms

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<tr>
<th>Acronym</th>
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<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<td>GADC</td>
<td>Gender and Development for Cambodia</td>
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<td>GAP</td>
<td>Gender Action Plan</td>
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<td>GMAG</td>
<td>Gender Mainstreaming Action Group</td>
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<td>GFP</td>
<td>Gender Focal Point</td>
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<td>ILO</td>
<td>International Labour Organisation</td>
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<td>ITC</td>
<td>Institute of Technology of Cambodia</td>
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<td>MAFF</td>
<td>Ministry of Agriculture, Forestry and Fisheries</td>
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<td>MIME</td>
<td>Ministry of Industry, Mining and Energy</td>
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<td>MoC</td>
<td>Ministry of Commerce</td>
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<td>MoLVT</td>
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<td>MoWA</td>
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<td>MRD</td>
<td>Ministry of Rural Development</td>
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<td>NEA</td>
<td>National Employment Agency</td>
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<td>SME</td>
<td>Small or Medium Enterprise</td>
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<td>STEM</td>
<td>Science, Technology, Engineering, Mathematics</td>
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<td>TVET</td>
<td>Technical and Vocational Education and Training</td>
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<td>WASH</td>
<td>Water, sanitation and hygiene</td>
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Prepared by Sereyroth Lim  
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on behalf of WaterAid  
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Introduction

There is currently low human resource capacity to support the implementation of Cambodia’s national water, sanitation and hygiene (WASH) policy, as highlighted in the National Action Plan for WASH. Addressing this challenge and building up a professional WASH cadre in Cambodia also presents an opportunity to increase women’s uptake of technical and professional WASH and water sector roles – a sector traditionally seen as ‘men’s work’ and dominated by men in Cambodia.

This scoping report provides a brief overview of the current situation with regards to women studying and/or working in WASH related roles. It identifies both the barriers that prevent women from studying or entering the WASH workforce, and the enabling factors which support women to study and work in WASH.

The purpose of this report is to provide evidence for WaterAid and others in the WASH sector to understand:

1. What is the current situation in Cambodia for women working in or studying WASH-related roles, such as engineering? (e.g. the number of women currently studying, graduating, currently employed in private/public sector etc.).
2. What are the barriers to women studying or entering the WASH workforce, or for young professional women in WASH growing their career?
3. What has enabled some women to seek, study or pursue a career in WASH? What would enable other women to do the same?

As WASH efforts and actors continue to address the human resource gap, we want to contribute to gender equality and create more opportunities for women who are entering the labour market, higher education or who are upskilling in their career. In Cambodia, lower rates of women than men are engaged in valuable, decent and productive work (ADB 2013). This scoping report aims to determine whether this is also true of the WASH sector, and if so, how we can create more equal opportunities.

Situation of women in the WASH sector

Policy landscape

With efforts from the Royal Government of Cambodia to promote gender equality and women’s empowerment, a number of key policies, plans and programmes have been developed and implemented. This section provides background on key government policies and strategic plans, relevant to women’s economic empowerment and participation in the labour market.

Neary Ratanak IV (2014-2018)

The most relevant government strategic plan to improve women’s social and economic status is Neary Ratanak IV, Cambodia’s five-year strategic plan for women’s empowerment and gender equality. This strategic plan is implemented by the Ministry of Women’s Affairs (MoWA) with relevant line ministries such as MoLVT, MIME, MAFF, MoC and others. It contains no mention of water, sanitation and hygiene (WASH), but it identifies strategic goals for improving women’s participation in public decision-making and gender mainstreaming across all areas of development.

The strategic plan outlines gender equitable approaches to increase women’s income, promote equal employment opportunities, and strengthen social protection. It focuses on creating enabling conditions for increasing women’s access to education, skills training, employment in SMEs and decision-making at all levels of both the public and private sectors (MoWA, 2014, p15). In order to implement this strategic plan, MoWA is providing skills and vocational training (mostly related to traditional skills) for women, particularly those from disadvantaged groups, through Women’s Development Centres in 14 provinces.

National Policy on Technical Vocational Education and Training (TVET) (2017-2025)

This policy aims to improve living standards by increasing the number of men and women who can undertake skilled work. There is a particular focus on addressing gender gaps, both by increasing the number of women working as TVET trainers in industry, and ensuring these women have improved technical and pedagogical skills. The policy also aims to increase the number of women managing TVET institutions and centres, and to ensure equitable access to TVET with increased
scholarships for disadvantaged groups, including women.

Strategic Plan for the Development of Labour and Vocational Training (2014-2018)

This plan is implemented by MoLVT and aims to increase employment opportunities and promote technical and vocational education for both men and women (MoLVT 2014).

However, neither the National Policy on TVET nor the Strategic Plan for the Development of Labour and Vocational Training address the small number of women studying and working in technical and professional skills.

Gender mainstreaming mechanisms in MRD and other ministries

Each ministry has an embedded Gender Mainstreaming Action Group (GMAG), tasked with mainstreaming gender into strategies and programmes, and coordinating the development of a Gender Plan within each ministry. MoWA plays an important role in supporting capacity development is provided to the GMAGs.

The Ministry of Civil Service has drafted a policy promoting women’s leadership in all levels of the civil service, across ministries and provincial departments.

From 2012 to 2016, the Ministry of Rural Development (MRD) had a Gender Action Plan in place. The plan was both a strategic capacity development priority in the Rural Strategic Development Plans, and in the National Strategy for Rural Water Supply, Sanitation and Hygiene (2011-2025).

The Gender Action Plan had six strategic priority areas:

1. Strengthen the capacity of gender networks at all levels in the MRD.
2. Increase quantity and quality of female staff.
3. Continue to provide opportunities and encourage female MRD staff to take up decision-making positions.
4. Increase gender mainstreaming in the rural development programme.
5. Continue to ensure that projects and activities of the MRD collaborate with the Gender Mainstreaming Action Group.
6. Monitoring and evaluation of the plan.

It is unclear how the plan was monitored or evaluated, what financial resources were put towards supporting implementation and how it was promoted among government staff, particularly relevant stakeholders. The level of collaboration with the Ministry of Women’s Affairs is also unclear.

Current situation of women’s education and training in WASH-related fields

A large proportion of the employed population in all key sectors have received no or only lower level education. About 12.5% of the total employed population have no education, while 45% completed primary education and around 35% completed secondary education. Only 3.3% of Cambodia’s population have attended vocational education and 3.8% tertiary education. The percentage of the female employed population with higher education is lower than that of the male employed population. There were half as many employed women with tertiary degrees compared to men.

An International Labour Organisation (ILO) report (2015) indicates that around 38% of students enrolled in higher education are female. It also pointed out that although the number of students enrolled in higher education has increased recently, they are highly concentrated in only a small number of disciplines. More than 50% of female students are enrolled in business administration and finance and fewer than 4% are studying engineering, medicine and sciences.

The enrolment rate of female students in courses related to WASH in the Department of Rural Engineering of the Institute of Technology of Cambodia (ITC) is 21% for engineering and 30% for the technician programme (which requires three years of study and focuses on apprenticeships) for the academic year 2016-2017.

In addition, the TVET programmes of the MoVLT are currently providing training on engineering and technical professional skills on various sectors through three public government institutes and 26 regional and provincial training centres. Twenty-one are based in provinces while eight are in Phnom Penh. These institutions offer different levels of education, including short courses and certificates to post-graduate levels in various skills and different sectors in response to the growing demands of the labour market in Cambodia. A total of 36,120 students (including 11,385 women) enrolled in TVET institutions under MoLVT. For a short course programme, 12,033 students (including 6,573 women) enrolled. A ‘water networking’ course is the only short course related to WASH, and has 15 male students enrolled and no women. A total of 22,004 students, including 4,460 women, enrolled in programmes at certificate to post-graduate level; civil engineering is the only WASH-related course in this category, with three women out of 55 students at certificate level and 224 women out of 4,180 students for both associate and bachelor degrees (MoLVT, 2017).
Overall, 77.5% of Cambodian women are active in the labour market, compared to around 87% of Cambodian men. The percentage of women working as professionals and technical workers is extremely low (only 0.4%). The percentage of women working as managers is only 1%, although the rate is twice as high in technical and professional roles (Bruni et al 2013).

The employment rate for both genders in water supply and sewerage is low at only 0.4% - while this is a small share, it represents a progressive increase compared to other industry sectors. The employment rate for women (0.3%) in water supply and sewerage is nearly three times lower than that for men (0.8%) (ADB & ILO, 2015).

According to the ITC’s 2017 report, 81% of the Institute’s engineering graduates go on to find employment in a range of sectors (private, public, NGOs or their own businesses) while 16% went on to further study in Cambodia or overseas. The Head of the Rural Engineering Department at the ITC also reported that graduates of the department mostly worked in public ministries and water supply authorities, while 20 - 30% pursued their postgraduate degree with scholarships in Cambodia or abroad.

However, in a 2013 report, the National Employment Agency (NEA) identified a shortage of individuals able to take up highly skilled engineering and technical roles. Among all the roles which needed filling (114,160) between 2010 - 13, engineering accounted for about 16% (18,083 jobs). The number of people seeking engineering jobs was only 5,892. Technical and professional skills faced a similar problem, with approximately 9,331 vacancies and only 1,731 job seekers.19

3.1. Gender stereotyping

In Cambodia, technical fields related to WASH, such as civil engineering, hydrology, water resource management or water connection or networking, are traditionally male-dominated. While the number of women studying these fields has been increasing, most key stakeholders questioned for this scoping report mentioned that social norms mean women are not encouraged to study or work in fields, including engineering and technology, that require physical strength. These societal expectations discourage girls from choosing to study STEM subjects in secondary school, resulting in a small percentage of women studying engineering and technical subjects in higher education. This also leads to a low proportion of female teachers and decision makers in the Department of Rural Engineering at the ITC; there are no women in decision-making positions and only 20% of teaching staff are women.

Furthermore, most vocational training courses provided by institutions and vocational training centres of the MoLTV and Ministry of Women’s Affairs focus on skills seen as traditionally female, such as sewing, hairdressing and beauty, bridal outfitting, handicrafts, vegetable growing and livestock raising.

Key stakeholders highlighted that as engineering and technical roles were considered men’s jobs, employers may not want to hire female engineers due to concerns about performance or ability. It is clear that gender stereotyping about ‘male’ and ‘female’ roles has a negative impact on the subject choices and career aspirations of individual women.

This scoping report also found that civil society organisations and government ministries, including the Ministry of Women’s Affairs, are not actively promoting women’s enrolment in the study of engineering and technical skills. Instead, they are working to promote the equal participation of women and men in the public sphere. Some programmes focus on education, and some on changing attitudes and perceptions towards gender equity and equality. A partnership between the Ministry of Civil Service, the Ministry of Women’s Affairs and donors is developing a draft policy to ensure women account for at least 30% of the workforce at all
levels of the civil service, including leadership and technical positions. Gender and Development Cambodia and Banteay Srei (Cambodian NGOs) are working to promote women’s equal participation in commune development plans, as well as transforming gender roles and gender equitable attitudes and behaviours. These two organisations also work to engage men and boys to promote gender equality and transform social norms, and to end violence against women and children. Banteay Srei, particularly has been working to increase women’s skills and leadership roles in the WASH sector.

3.2. Limited access to information related to course availability and career prospects

Business management and economics are very popular subjects and are offered by the majority of public and private universities and institutes in Cambodia. Engineering and technical courses are only offered by a few universities and institutes, mostly based in Phnom Penh. Many stakeholders interviewed for this report mentioned that too few high school students receive enough information at school about engineering and technical courses and career prospects in this field, particularly those living in the provinces.

Education fairs and career forums, including those organised by the NEA to showcase university programmes, technical training and employment opportunities, mostly took place in Phnom Penh and a few provinces. This is due to a lack of infrastructure and resources to expand these education and career forums to all provinces, particularly rural areas. Women have difficulty accessing this kind of event. Culturally, women are not permitted to travel far from home to study, while the majority of higher education opportunities for engineering and technical skills are concentrated in Phnom Penh. Although universities that offer these subjects, particularly the ITC, recognised a gender disparity in this field, none of their outreach programmes seem targeted to increase the number of women enrolled, nor do they reach high school students of both genders in the provinces. A female lecturer interviewed for this report stressed that while at high school, she did not receive much information about the rural engineering programme at the ITC. She only heard about the programme (from members of her family) once she had the chance to go to Phnom Penh.

A lack of information reduces the likelihood of women taking up studies in traditionally male-dominated fields such as engineering.

Case study 1: Women in the academic field of engineering

Ms. Pinnara is a PhD candidate. Before pursuing her PhD, she worked as a lecturer of Hydraulic Structures, Irrigation and Hydrology at the Institute of Technology of Cambodia (ITC) for three years. She is a former student of the ITC and graduated with a masters degree in Water Resources Engineering in Belgium through a scholarship programme in 2011.

Ms. Pinnara also benefited from a subsidy scheme aimed at recruiting more students from the provinces. She paid half the annual tuition fee while studying rural engineering at the ITC. Being female and from a rural area, she was unable to access much information about university education and career prospects, but was lucky to get support from a relative in Phnom Penh.

During her studies at the ITC, there were very few other female engineering students. According to Ms. Pinnara, this was because engineering was considered for men, and because women were not attracted to a field which requires physical strength and working outdoors in all conditions. She identifies this as a reason why she decided to study engineering, as it would not only help to build her confidence but also to change society’s negative perceptions that engineering is not suitable for women.

During her three years working at the ITC, she says she has received a lot of support from her male colleagues and the head of her department. They have encouraged her to engage in a number of research projects to develop her skills and knowledge on related fields, as well as to continue her PhD studies. There are not many female lecturers in the department (only five among 38 lecturers). Due to limited professional experience, she said that the female lecturers are not very active in the management work of the department, with none holding leadership positions.

Ms. Pinnara feels she would need to enhance her leadership and management skills to be able to become a competent manager or leader.
3.3. High cost of tuition fee

Engineering students study for a five-year period. This is longer than degrees in the arts, social sciences and business management and economics, which are usually three to four years. Annual tuition fees for engineering courses, including subjects related to WASH, are approximately $600, which is also higher than other degrees (around $350-$400 per year). Tuition fee costs for technical programmes, requiring up to three years’ study, are around $300 per year. Additional costs, such as accommodation, stipend and materials, can be a burden for many students, including women from rural provinces. Although some public universities and institutions provide accommodation free of charge, availability is limited. This could be a reason for lower rates of student enrolment, including women, in this field of study.

3.4. Limited capacity in gender mainstreaming

Gender Mainstreaming Action Groups (GMAGs) were established in most of the line-ministries with technical and capacity development support from the Ministry of Women’s Affairs and development partners. GMAGs work to support the ministry to develop a gender mainstreaming action plan, to monitor and provide technical support to all departments mainstreaming gender into their works. GMAGs share and update others on the progress of and challenges to their plan at regular meetings of the Technical Working Group on Gender (TWG-G), coordinated by the Ministry of Women’s Affairs (MoWA). Although there has been good progress in gender mainstreaming into policies and programmes, some significant constraints remain. The capacity in line ministries (particularly MoLVT and MRD) is still limited in terms of understanding gender issues. There is a lack of in-depth gender analysis into policies and programmes, and stereotypes persist about women’s roles. Aside from the GMAGs, technical staff and some heads of department are unaware of the gender mainstreaming action plan of their ministry, as they mostly focus on the core duties of their departments. Moreover, the budget allocation for implementing gender mainstreaming action plan was limited. Therefore, gender issues and inequality in relevant development sectors are not being properly addressed.

3.5. Scholarship programmes for women

The percentage of female students studying WASH-related programmes on rural engineering at the ITC has considerably increased, from 16% to 21% between 2012 - 15. This increase can be significantly attributed to subsidies and scholarship programmes for the most disadvantaged groups, including female students. The ITC has a policy to offer tuition fee exemptions for 10% of student enrolments in the first year. The exemption is offered to students who receive a high score in their entrance exam (60%), have financial difficulties (20%), are from remote areas (5%) and women (15%).

The ITC also provides additional subsidies for female students. Female engineering students at the ITC pay only 75% ($450) of their annual tuition fee and those on technician programmes pay 66% ($200) per year. These provisions are only available to women with high academic performance who can afford the tuition fee.

Some scholarships from other donors also have a quota for women. For example, an Asian Development Bank (ADB) project has provided a scholarship programme to 30 students, 30% of whom were female (reaching the specified target). The scholarship covers annual tuition fees and living expenses for five years of study. A qualifying criteria for this scholarship is a high score in the entrance exam. Provisions such as these create a more enabling environment for financially disadvantaged and academically gifted female students to access higher education, increasing the proportion of women in this particular specialty. Although the proportion of women studying engineering for the WASH-related sector has gradually risen, gender disparity still exists in this field of study. The majority of stakeholders suggested that, while potentially costly, a specific scholarship programme for women, including the most vulnerable, could increase numbers studying engineering and technical skills related to WASH.

3.6. WASH-related courses

Although a sub-specialty programme on WASH is not available, the mechanisms to integrate such a course are established. It could be added to a variety of TVET courses offered by both private and public institutes and training centres. Existing TVET courses only offer a course on Water Networking. The Department of Rural Health Care in the Ministry of Rural Development has expressed its intention to develop specific WASH programmes. This will contribute to fulfil market demand for these skills as well as creating opportunities for rural students to access to these skills.

However, neither the relevant ministries (the Ministry of Labour, Vocational Training, the Ministry of Women’s Affairs and Ministry of Rural Development) nor the private sector are investing much effort in increasing women’s participation in the TVET programme. In addition, some stakeholders pointed out that TVET providers have limited knowledge on this sub-specialty, so it could be challenging to implement once new skills related to WASH are added.

3.7. Learning from similar programmes in the region – the Asian Development Bank in Laos

A recent five-year Asia Development Bank (ADB) programme in Laos aimed to promote the role of women in the water sector. Interviews with key programme staff were conducted as part of this scope report, to better understand the challenges and successes of the work.

The programme aimed to strengthen the capacity of women working in water utilities, and to increase the number of women planning to work in the water sector through work with high school graduates.
There are three critical reflections:

- Only 50% of female programme graduates were hired. There were too few roles available within the Laos water sector and the pace of change is slow. The low capacity to take on staff raises the question of whether the investment was effective.
- With scholarships, it is necessary to scale up to reduce transaction costs – focusing on technical and vocational education could be more effective, because students required high levels of support when transitioning from high school to university.
- The programme demonstrated what women can do and changed perceptions of the sector – especially for women working in provincial areas.

The Laos experiences offers the following advice for Cambodia:

- **Change cannot be a standalone process**: The gender aspects were tackled within the broader context of corporate reforms of water utility companies. For example, gender-based targets around more women accessing training, working in and upskilling in the sector formed part of a broader ‘corporate plan’.
- **Increasing roles/challenging existing attitudes**: Increasing the number of roles within water utilities and ensuring that they are open to women is a more effective route to ensuring gender equality than simply providing scholarships.
- **Ensure change is compliance/policy driven**: In Laos, there was a ministerial gender strategy which mandated a target of 30% for women’s participation. All provincial authorities were obliged to prepare and apply a cooperation plan. The first generation of plans had no gender targets, but the second generation did. The need to be compliant drove change.
- **Change must involve gender-focused ministries**: This was critical, as it meant it was cross-departmental. Change cannot be achieved by one sector and requires the relevant ministries to be engaged.
- **Watch this space**: A joint WASH sector review will be a “moment of truth” to see if gender ownership has been taken up by authorities. Led by ADB, Unicef, WHO, the review was due for publication at the end of 2017, but was delayed.

Case study 2: Women in the academic field of engineering

Ms. Leakhena was the first female lecturer in the Department of Rural Engineering at the Institute of Technology of Cambodia (ITC) specialising in IWRM, GIS and Soil Sciences. She has also been a researcher in this field for many years with different organisations.

Ms. Leakhana received a full scholarship for her studies at both bachelor and master degree level due to her scores in the entrance exam being among the highest. Ms. Leakhana states that engineering was not usually considered for female students, with women making up less than 10% of the student body. She says that while it was tough for female students, with support from her family she was able to successfully complete the course.

Working at the ITC for seven years, Ms. Leakhana reports receiving full support from male colleagues. However, she sometimes found it stressful having no female colleagues with whom she could discuss professional concerns. Moreover, she noticed that opportunities for conducting field work as member of project teams were sometimes limited for women, because it was not considered convenient for them, particularly field work, for example, work that required a full day’s travel on a boat on the Tonle Sap river.

She believes that in order to increase women’s participation, women need female role models in the WASH engineering sector, to challenge the view that WASH is only open to men. This could help to shift stereotypes, inspiring more female students to consider this field of study and encouraging private companies to recruit more women.
Recommendations

To address barriers and promote the equal participation of both genders in studying and working in the WASH sector, stereotypes need to be tackled and women’s participation must be actively promoted. Below are a series of practical recommendations for measures which government, universities, vocational education groups and civil society organisations could implement to address gender inequalities across WASH-related professional and education sectors.

Recommendation 1:
Encourage women to study WASH-related subjects and support them in their education journey.

Challenging attitudes that engineering is ‘men’s work’ needs to start early on and reach different audiences and sectors. Some practical ways of doing this include:

1. Tackle gender stereotypes: information about study options and technical careers.
   - Ensure that education forums on STEM and outreach programmes of TVET target, reach, inform and encourage female school leavers and young people to consider engineering and technical areas of study related to WASH.
   - Implement a campaign to overcome gender stereotypes about ‘men’s work’ in engineering or WASH-related roles (led by government or an NGO).
   - Better equip students with the necessary skills and knowledge to pass university entrance exams (e.g. coaching on how to prepare for entrance exams). These programmes exist in Phnom Penh but are expensive and only available to a small number of students based in urban areas.

1.2 Scholarships, subsidies and incentives for women to study WASH-related subjects.
   - Increase support for scholarship programmes which target women, or other disadvantaged groups. Scholarships need to cover both tuition fees and living expenses and could prioritise the provinces, which are facing a skills shortage in the WASH workforce.
   - Ensure that scholarship information is widely publicised in provinces, including remote areas.
   - Allocate a number of scholarships for women living in remote and rural areas of Cambodia.
   - Increase the quota for women in STEM within the existing public subsidy scheme supporting women in tertiary education, which will contribute to increasing the participation of both women and men in the engineering sector in Cambodia.
   - If a full scholarship cannot be provided, offer tuition fee discounts. The discount policy introduced by the ITC on tuition fees for female students is a positive example of how to encourage more female students to enrol in WASH-related programmes and should be adopted by other universities and institutions, with the encouragement of Government and NGOs.
1.3 Strengthen the vocational pathways for women (and men) into WASH-related study.

Due to the difficulty in entering WASH-related courses in higher education, pathway programmes which act as a bridge between school and university may encourage greater women’s participation. Pathway programmes could include:

- the provision of relevant information to secondary school students in rural and remote areas.
- the integration of subjects or short education sessions which aim to build women’s confidence and leadership skills (or among school students).

1.4 Integrate specific WASH-related courses in existing vocational education (TVET) system.

- Host a discussion with relevant ministries to determine if there is interest in integrating WASH in vocational training programmes.
- Encourage coordination among relevant ministries (MRD, MoLTV and MoWA), to facilitate resource mobilisation, to increase WASH specialists, especially women, for both public and private sectors.
- Design a course tailored to the current and future demands of the WASH workforce.
- Training course content provided by the MoLVT must not reinforce gender stereotypes and a strategy to encourage female student enrolment should be prioritised.
- Include modules directly addressing gender issues in the training courses.

Recommendation 2:
Support women graduates to enter the WASH workforce and start their career.

Professional and career development support is important for female graduates to be successful in finding employment. Practical recommendations to address barriers and facilitate greater participation in the workforce after studying include:

2.1 Mechanisms to support female students as they near graduation:

- Universities could establish internship programmes, including a targeted focus on female students, to get professional experience before graduating from university.
- Support women working as WASH professionals to become mentors to other women as they enter their final years of university or graduate.

- Support students, especially women, to get an understanding and preparation for career opportunities in both the public and private sectors, including leadership skills, public speaking and interview preparation.
- The National Employment Agency could facilitate job placements for female graduates in WASH-related sectors and work with relevant ministries such as MoWA and MRD to increase engineering and technical skills related to WASH.

2.2 Mechanisms to support women early in their career:

- Establish a Women’s Engineering Forum (this research did not identify anything similar) for women who are either studying or working – to share experience, meet regularly, share insights and ideas.
- Establish a mentorship programme: Linking up professional women as mentors to women who are working across public and private sectors.
- Establish and promote leadership courses, study exchanges, professional development and management courses for women (and men) working in WASH-related fields.

2.3 Employers take affirmative action to employ women in technical roles

The government and civil society organisations need to put more focus on changing the attitudes and practices of employers to encourage equal opportunities for both women and men in the engineering sector. Examples of this include:

- Encourage diversity and gender policies in organisations and companies by sharing positive examples from other sectors in Cambodia (including family-friendly work structures).
- Establish a training programme for human resources departments and senior management within private organisations.
- Gender audit tools should be shared and used in the sector for the internal assessment of gender mainstreaming.
- Advocate to government to adopt a quota system for female employees in technical roles.
**Recommendation 3:**
Promote and bolster the implementation of gender action plans in WASH-related ministries.

Strengthening capacity development for the MRD and other line ministries on gender analysis, gender mainstreaming and promoting gender equality in the workplace is necessary, in order to implement gender action plans in relevant sub-sectors. Practical recommendations include:

3.1 Build the Ministry of Rural Development’s capacity to mainstream gender as per their action plan:

- Provide practical gender training – with mentoring and follow up – to MRD staff at all levels, to shift awareness and understanding.
- Advocate for the MRD to do a gender audit or analysis to measure current gender mainstreaming integration across the MRD.
- Advocate for provisions, strategies and indicators on gender to be included in MRD policies, action plans and monitoring systems.
- Encourage men to take up Gender Focal Point roles as well as women, ensure the role has decision-making power and that men participate in the process.
- Senior management need to support implementation of the gender action plan, the gender focal point role and provide budgetary support.

3.2 Strengthen Gender Action Plans:

- Conduct an evaluation of the previous GAP (2012-2016) to assess what was done well and where the gaps were.
- Use this analysis to inform the next strategy.
- Ensure gender action plans include provisions for training and upskilling opportunities for women in engineering and technical fields.
- Budget and resourcing: Resource mobilisation for sector gender mainstreaming action plans should be strengthened, particularly budget allocation in the MRD for gender mainstreaming in WASH should be advocated.

3.3 Promote cross collaboration between ministries to support gender mainstreaming efforts:

- MoWA and MRD: as collaboration and coordination can be a challenge between Ministries, a clear, shared action plan is needed, with good reporting mechanisms in place.

3.4 Support women in technical and senior management roles in the Ministry of Rural Development:

- Twinning programmes: matching professional women across different contexts (e.g. developed and developing contexts) can support women to build their technical skills and knowledge.
- Provisions and specific measures to support women to take up further study opportunities during their career (particularly after two to three years) to continue to upgrade their engineering and technical skills.

**Recommendation 4:**
Civil society organisations to lead advocacy and influencing efforts on women’s participation in the WASH sector.

- Develop case studies and published reports or briefs which depict women’s experience of studying and working in engineering related to WASH. Wide dissemination could inspire more young women to enrol in this field of study.
- WASH NGO’s to partner and collaborate with women’s groups to promote and raise awareness of gender stereotypes in WASH. This could include engaging more with women’s empowerment groups who are focused on improving education, or groups focusing on promoting women’s economic empowerment.
- Advocate to MOWA that the National Action Plan Gender strategy could include WASH (currently nine sectors are identified but nothing WASH-related) or more broadly, could encourage women to take up non-traditional employment roles e.g. engineering or WASH.
References

2 Ibid. ILO 2011
3 Ibid. ILO 2011
4 Ibid. ILO 2011
6 Ibid. ADB & ILO 2015.
7 Attendant list of students studying in the Department of Rural Engineering, the Institute of Technology of Cambodia (ITC), academic year 2016-2017.
8 Short course is a programme involving practical vocational training tasks and a limited number of classroom presentations.
9 It normally requires less than one year of full time studies or equivalent (non-formal training).
10 There are three types of certificate level (C1, C2 and C3 is a programme involving practical technical and vocational training tasks and a limited number of classroom presentations. It normally requires one year of full time studies or equivalent.
11 Interviewed with GMAGs and head of department of the MoLVT and MRD and mentioned in MoWA: Neary Rattanak IV (2014-2018)
12 Ibid

Annex 1:

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Sex</th>
<th>Position</th>
<th>Organisation</th>
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<tr>
<td>1</td>
<td>Kuch Sokhorn</td>
<td>F</td>
<td>Labour Inspector</td>
<td>Ministry of Labour and Vocational Training (MoLVT)</td>
</tr>
<tr>
<td>2</td>
<td>Yoem Pechmolika</td>
<td>F</td>
<td>Chief of Office</td>
<td>Ministry of Labour and Vocational Training (MoLVT)</td>
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<td>3</td>
<td>Sathya Kong</td>
<td>F</td>
<td>Deputy Director of Department</td>
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<td>4</td>
<td>Serey Satha</td>
<td>F</td>
<td>Director of Department</td>
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<td>5</td>
<td>Chhrey Pom</td>
<td>M</td>
<td>Director of Rural Health Care</td>
<td>Ministry of Rural Department</td>
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<tr>
<td>6</td>
<td>Soth Sithon</td>
<td>F</td>
<td>Director of Economic Empowerment</td>
<td>Ministry of Women’s Affairs (MoWA)</td>
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<td>7</td>
<td>Dr. Lee Sarann</td>
<td>M</td>
<td>Head of the Rural Engineering Department</td>
<td>Institute of Technology of Cambodia (ITC)</td>
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<tr>
<td>8</td>
<td>Ket Pinnara</td>
<td>F</td>
<td>Lecturer</td>
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<td>9</td>
<td>Ros Sopheap</td>
<td>F</td>
<td>Executive Director</td>
<td>Gender and Development for Cambodia</td>
</tr>
<tr>
<td>10</td>
<td>Pet Ponnary</td>
<td>F</td>
<td>Executive Director</td>
<td>Banteay Srei</td>
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