

SUMMARY OF RESEARCH REPORT 9

FEMALE WATER ENTREPRENEURS IN CAMBODIA: CONSIDERING ENABLERS AND BARRIERS TO WOMEN'S EMPOWERMENT

JUNE 2018

This summary report presents research findings examining the extent to which women's ownership and management of water supply schemes led to their empowerment, including economic empowerment, in Cambodia.

Introduction

Small-scale privately owned and operated water supply schemes are playing an increasing role in rural Cambodia, particularly in rural growth centres. Yet little is known about the different experiences of men and women in the sector, or how gender norms influence their experiences and business opportunities.

In 2015 there were an estimated 300 privately managed water supply schemes in rural Cambodia, serving over one million people (World Bank, 2015, p. 15). In recent years, a range of policies has been put in place by the Cambodian Government to promote gender equality within the rural water and sanitation sector. One such policy is the Cambodian National Strategy for Rural Water Supply (2011–2025), which includes provisions to increase gender equality. One of the ways the Strategy aims to do this is by: 'Mainstream[ing] gender in the [rural water supply] sector' (Cambodian Government, 2011, p.10).

However, there are major knowledge gaps related to how gender norms intersect with the rural water sector, and with the growth of water enterprises in Cambodia. These gaps include: a lack of knowledge about how gender influences who becomes a water entrepreneur; what the experiences, challenges and opportunities of water entrepreneurs are; and how water entrepreneurship relates to women's empowerment, including economic empowerment.

To begin to address these knowledge gaps, this study examined the extent to which women's ownership and management of water supply schemes led to their empowerment, including economic empowerment. This study, and a related concurrent study in Indonesia, are the first of their kind to systematically look into the experiences and needs of female water supply scheme entrepreneurs (henceforth referred to as "entrepreneurs"), and the first

to explore their experiences with reference to women's empowerment frameworks. The research was a collaboration between the Institute for Sustainable Futures-University of Technology Sydney (ISF-UTS), East Meets West (Cambodia) (EMW), and the Cambodian Water Supply Association (CWA).

The purpose of the research was to inform and support NGOs, donors and Cambodian government agencies to develop an enabling environment which is not gender blind, can

support women's empowerment, and will contribute to sustainable piped water services in rural areas.

“Women can show their courage, success and involvement in the development of the economy, society and country as a whole.”
Female water entrepreneur, Cambodia

FIGURE 1 RESEARCH TEAM MEMBERS INTERVIEWED FIFTEEN FEMALE WATER ENTREPRENEURS IN CAMBODIA



RESEARCH QUESTIONS

Research Question 1

To what extent are women empowered through their management of water supply schemes in Cambodia?

- What are common barriers and enablers for female entrepreneurs managing water supply schemes in Cambodia, and how do these relate to an understanding of women's empowerment?
- To what extent does women's involvement in managing water enterprises in Cambodia facilitate their empowerment, including economic empowerment?
- What is the relationship between the barriers and enablers faced by female entrepreneurs in other sectors in Cambodia, and the barriers and enablers faced by women managing water enterprises in Cambodia?

Research Question 2

What needs to be done, and by whom, to support female water entrepreneurs in Cambodia to achieve empowerment, including economic empowerment, outcomes?

- What strategies exist to support female water entrepreneurs in Cambodia?
- What measures do female water entrepreneurs want introduced to support their water supply schemes, and who do they want to introduce these measures?
- What do these support needs and wants mean for the WASH-enabling environment in Cambodia with respect to supporting female water entrepreneurs?

Methodology

A collaborative approach was employed for this research to facilitate engagement between researchers and practitioners. This enabled the co-creation of the research methodology. This study adopted a primarily qualitative methodology, but included some quantitative approaches. In total, 27 structured interviews were conducted with female water entrepreneurs, commune council members, and provincial and national stakeholders. The research was conducted in eight provinces of Cambodia: Koh Pong, Battambang, Kampong, Kampot, Sihanouk, Takeo, Kandal and Kratie. The water supply schemes included in this study ranged from schemes with 600 connections to a scheme with 2910 connections. They were in rural contexts and were established between 2001 and 2017.

The interview guide focused on barriers and enablers to establishing and managing water supply schemes, and was informed by a review of the literature on female entrepreneurship in Cambodia, Lao PDR and Indonesia (Leahy et al., 2017).

FIGURE 2 INTERVIEWS WERE CONDUCTED WITH RESEARCH PARTICIPANTS FROM EIGHT PROVINCES IN CAMBODIA



FIGURE 4 INTERVIEWS WITH FEMALE WATER ENTREPRENEURS



FIGURE 3 STAKEHOLDERS INTERVIEWED FOR THE RESEARCH

NATIONAL (N=3)	<ul style="list-style-type: none"> Ministry of Industry and Handicraft Department of Rural Water Supply (Ministry of Rural Development) Cambodian Women for Peace and Development
PROVINCIAL (N=5)	<ul style="list-style-type: none"> Provincial Department of Women's Affairs Provincial Department of Industry and Handicraft Provincial Department of Rural Development
COMMUNE (N=4)	<ul style="list-style-type: none"> Commune Chiefs and Deputy Chiefs
PRIVATE WATER ENTREPRENEURS (N=15)	<ul style="list-style-type: none"> Female piped water entrepreneurs

“Development of the road damaged pipes and lost water... [therefore we] were unable to supply clean water to the households due to the damaged pipes.”

Female water entrepreneur, Cambodia

The analysis framework drew on conceptions of women's empowerment, including economic empowerment, which view empowerment as a process of transforming power relations in ways which promote women's rights and social justice. This conceptualisation of empowerment considers four types of power: 'power within', 'power to', 'power over' and 'power with' (Eyben, Kabeer & Cornwall, 2008; Taylor & Perezniето, 2014), as discussed in Figure 6.

FIGURE 5 INTERVIEWS WITH GOVERNMENT STAKEHOLDERS WERE CONDUCTED



FIGURE 6 EMPOWERMENT FRAMEWORK EMPLOYED IN THIS RESEARCH

TYPES OF POWER	EXPLANATION	EXAMPLES OF EMPOWERMENT (Eyben, Kabeer and Cornwall, 2008)	EXAMPLES OF ECONOMIC EMPOWERMENT (Taylor and Perezniето, 2014)
'POWER WITHIN'	Self-understanding, self-esteem, sense of entitlement to fulfilment of their rights, self-belief to make changes in their lives	Perception that women have capabilities equal to men and are entitled to make own choices	Learning business skills or financial literacy to feel prepared to start an enterprise
'POWER TO'	Decision-making roles in the household, community, and economy - extending to areas traditionally considered as men's occupations or domains	Leadership of women in village-level committees and government agencies	Managing decisions within own enterprises
'POWER OVER'	Access and control over financial, physical and knowledge resources	Ownership and control over land, housing and freedom of movement	Access to credit, paid employment and income-generating activities
'POWER WITH'	Process of group conscientisation and mobilisation to agitate for rights and change the labour and market conditions	Women claiming space to challenge social norms regarding their roles and how they are treated by others	Forming cooperatives, unions and group-based financial services

Findings

Barriers

Entrepreneurs reported encountering four key types of barriers to establishing and managing water supply schemes. These related to: 1. operational issues 2. government and regulations, 3. financial issues and 4. limited demand for water services.

Operational barriers included damage to pipes that occurred due to road and fence building, a lack of cooperation from households, and limitations to entrepreneurs' personal mobility. Damaged infrastructure due to construction was a particular area of concern for entrepreneurs.

Government and regulatory barriers reported by entrepreneurs included a lack of policies and regulations to support their management of water supply schemes, such as caps on water tariffs and burdensome administration.

Financial barriers included high interest rates, high expenditure on electricity and rent, and customers not paying on time. Limited demand for water services issues included lower demand from customers during the rainy season and the perceived need for increased community understanding of the importance of clean water which could drive demand for services. Stakeholder perspectives on the thematic challenges faced by entrepreneurs is presented in Figure 7.

FIGURE 7 HIERARCHY OF CHALLENGES

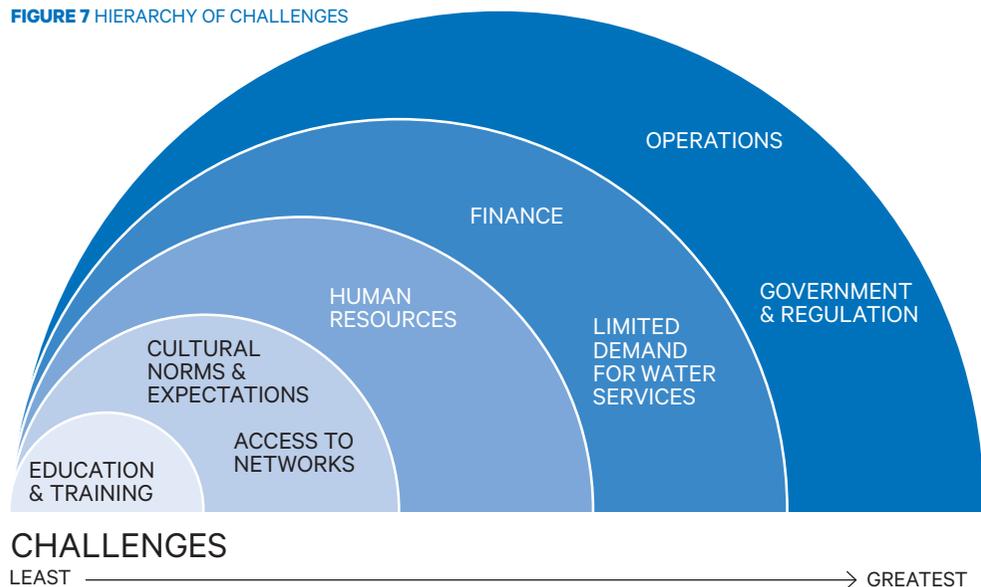


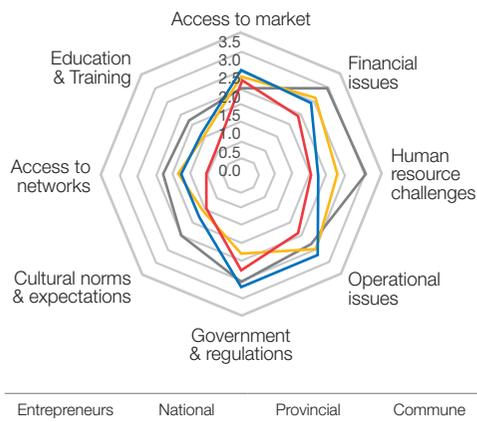
FIGURE 8 HIERARCHY OF CHALLENGES

Challenges (themed)	Definition provided during the interview	Challenges rated by entrepreneurs in order of magnitude
Operational issues	Include high expenses such as electricity, rental etc.; insufficient or irregular access to water resources all year round; equipment that breaks down.	1
Government & regulation issues	Include government requirements to pay fees or taxes, policies that make it hard to run a water enterprise, lack of government support, inconsistent approaches to subsidies.	1
Financial issues	Include a lack of financing options for enterprises or their customers, high interest rates, customers not paying on time, and challenges to reach economies of scale especially in remote areas.	2
Limited demand for water services	Include low or irregular demand which might be due to seasonal variations in water supply or demands; and lack of information about potential customers and what their needs are.	2
Human resources challenges	Include not very much or no access to technical and business skills, it being hard to find the right staff with the skills you need, not having enough time to manage your water enterprise.	3
Cultural norms & expectations	Include reduced economic independence and/or opportunities to attain financial stability, expectations that you will stay at home and look after the family rather than have paid work, not being supported (or allowed) to travel, the perception that women are of lower status than men.	4
Access to networks	Include barriers to networking opportunities which help to support your business activities	4
Education & training	Include having lower levels of literacy in comparison to men, less support for attending school or post-school education and training opportunities.	5

FIGURE 9 WATER SUPPLY INFRASTRUCTURE IN RURAL CAMBODIA



FIGURE 10 STAKEHOLDER PERSPECTIVES ON THE THEMATIC CHALLENGES FACED BY ENTREPRENEURS



Gender related barriers

The literature review that informed this study identified barriers and enablers for female entrepreneurs within and beyond the WASH sector, and found nine key areas of typical barriers to their entrepreneurship (Leahy et al., 2017; Willetts et al., 2016):

1. Regulations
2. Finance
3. Limited access to business development services
4. Cultural values
5. Networks and networking
6. Education and training
7. Informal fees/corruption
8. Human resources
9. Operational issues

The empirical research in this study confirmed that operational issues, regulatory barriers and financial issues were key barriers to women managing water supply schemes. Limited access to business development support, cultural values (including gender norms and discrimination), human resources challenges and networking were partly confirmed as barriers, though not identified by water scheme entrepreneurs as major problems. The empirical research did not find that levels of education and training were perceived as barriers by entrepreneurs, and the empirical phase of the study did not confirm or refute the view that informal fees and corruption constituted a barrier.

Enablers

Entrepreneurs reported three key enablers which helped them to establish and manage water supply schemes: 1) social enablers, 2) economic enablers and 3) program support. Social enablers included receiving encouragement and practical help from family members and friends, as well as seeing other women succeed in the sector. Economic enablers included access to finance, including loans from financial institutions or family members. Targeted programs offered by the Cambodian Water Supply Association and provincial government agencies, such as the Provincial Department of Industry and Handicrafts (PDIH), were identified by entrepreneurs to be of great benefit.

“ I received training from the Provincial Department of Industry and Handicraft on how to clean the water treatment plant, how to locate leaks in the system and administrative management. ”
Female water entrepreneur, Cambodia

FIGURE 11 ENABLERS REPORTED TO HAVE SUPPORTED ENTREPRENEURS TO SET UP THEIR WATER SUPPLY SCHEME

<p>SOCIAL ENABLERS</p>	<ul style="list-style-type: none"> • Support and encouragement from family and friends • Witnessing other women succeed in managing a water supply scheme
<p>ECONOMIC ENABLERS</p>	<ul style="list-style-type: none"> • Capital investment: loan from bank, micro-credit institutions, family or private savings
<p>PROGRAM SUPPORT</p>	<ul style="list-style-type: none"> • Technical and financial training • Peer-to-peer networking • Provincial government support: promotion of women to be leaders in their communities, providing credit to projects supporting entrepreneurs, and encouragement of women to participate in the private sector and public works

Empowerment outcomes

The extent to which owning and managing water supply schemes facilitated entrepreneurs' empowerment, including economic empowerment, was analysed using a conceptualisation of four types of power: 'power within', 'power to', 'power over' and 'power with' (Eyben, Kabeer & Cornwall, 2008; Taylor & Perezniето, 2014).

'Power within' suggests that women feel powerful, and empowered, within themselves when they have a strong sense of self-esteem, a sense that they are entitled to having their rights respected, and the self-belief required to make changes in their lives. While the majority of entrepreneurs in this study displayed elements of 'power within', in terms of their perception of having the same capabilities as men to manage a water supply scheme (n= 10 of 15) and their self-belief to start a water supply scheme (n= 2 of 15), societal norms and perceptions which promote men as more mobile and stronger workers were also articulated.



It is different for men and women to set up a water service ... men do not do as much housework as women do, and men have more knowledge than women ... men work faster and it is easier for them to go out and work at night [for example if pipes leak].

Female water entrepreneur, Cambodia



While entrepreneurs reported benefits from training provided by a number of organisations, and reported that this training facilitated their economic empowerment and preparedness to start a business, they also highlighted a need for continued and more targeted training.

'Power to' involves women feeling powerful and empowered to hold decision-making roles in the household, community and economy, and to manage financial decisions within their own enterprises. Entrepreneurs reported having 'power to' manage financial decisions and increased independence, including financial independence.



I feel confident in managing my business's financial matters because my income and expenses are okay ... I want women to not rely on their husbands only.

Female water entrepreneur, Cambodia



All entrepreneurs were involved in decision-making roles related to household expenditure and the majority of entrepreneurs also reported managing the finances of their water supply scheme (n= 10 of 15). Most of the water supply schemes examined in the study were family businesses, where husbands and family members also played significant roles in the water supply scheme, and joint financial decision-making was common.

'Power over' involves women feeling they have control over and access to financial, physical and knowledge resources.



It is a very good option for women to run the water supply scheme ... I will advise them if they are interested in setting up a water service.

Female water entrepreneur, Cambodia



While entrepreneurs reported having confidence in managing the finances of their enterprises, they had concerns about high interest rates, access to finance, freedom of movement, and their need for additional technical training. High interest rates on loans taken out, the double burden of work (such as housework and running a business) reported by some entrepreneurs, and worries about the financial status of their enterprises, limited women's economic empowerment.



Women are afraid, women cannot travel far away [from home] and cannot stay longer.

Female water entrepreneur, Cambodia



FIGURE 12 WATER SUPPLY INFRASTRUCTURE IN RURAL CAMBODIA



‘Power with’ refers to the capacity to collaborate with other women in a process of group mobilisation to call for their rights to be upheld, and to change labour and market conditions for all women. Some entrepreneurs reported experiencing ‘power with’ other entrepreneurs. They said that this resulted in women supporting each other to establish water supply schemes. Entrepreneurs also expressed a desire to help other women establish water enterprises if they were interested and had information and financial support.

“
I saw other women running this business and I love it too ... I [then] studied the location, I collected data, I communicated with the commune chief to consult with him.”
Female water entrepreneur, Cambodia

FIGURE 13 FEMALE ENTREPRENEUR EXPLAINING WHERE THE SOURCE OF WATER IS DRAWN FROM FOR HER WATER SUPPLY ENTERPRISE



Enhancing the enabling environment for female entrepreneurs: support mechanisms

Our analysis of barriers, enablers and empowerment, including economic empowerment, outcomes made it possible for the research partnership to make recommendations for a range of actors who are part of the rural water supply enabling environment in Cambodia. These recommendations were also informed by responses from entrepreneurs, who were asked what support mechanisms they would find most useful to address the challenges that they faced. Entrepreneurs identified the need for further technical and financial support, education for communities about the benefits of clean water (to increase piped water demand), access to peer-to-peer support networks, and subsidies to the poor and remote properties to connect to their schemes. Entrepreneurs identified the CWA, government agencies, civil society organisations, and families as being the entities best placed to provide these kinds of support to them.

FIGURE 14 THE CAMBODIAN WOMEN FOR PEACE AND DEVELOPMENT WERE INTERVIEWED AS PART OF THIS RESEARCH PROJECT



“
I have not made any profit because I continue to spend money on pipes for expansion, for workers to dig and lay pipes and on other materials and equipment ... I have not yet felt confident because the expenses are more than income.”
Female water entrepreneur, Cambodia

Summary of findings and recommendations

Transforming power relations in ways which promote women's rights and equality, and assessing whether changes do in fact improve conditions for women, are complex challenges. While women's involvement in the water supply sector can facilitate their empowerment, including economic empowerment, the research showed that to improve women's empowerment outcomes in rural Cambodia there was a need for more support to address women's "double burden" of working in the home and in enterprises, to improve access to technical training, to improve access to low-interest credit, and to promote peer-to-peer professional support networks.

The research identified eight key findings and recommendations for donors, civil society organisations, and government organisations in Cambodia (at the commune, provincial and national levels):

FIGURE 15 PIPED WATER INFRASTRUCTURE IN RURAL CAMBODIA



1. While barriers related to gender norms were not considered by entrepreneurs to be their greatest challenges, women's limited mobility (impediments to travelling far away from the home and to going out at night) and household duties were reported as concerns. These mobility and workload challenges made it harder for female entrepreneurs to manage their water supply schemes, and constrained women's attendance at meetings as well as their capacity to respond to operational issues involved in managing a piped water schemes.

Recommendation: Donors, civil society organisations (CSOs) and government agencies should build a nuanced understanding of gender differences and challenges into their programming, so that gender norms that influence mobility, household workloads, and time constraints, for example, are carefully accounted for and managed. A continuing practice of investigating gender differences by donors, civil society organisations (CSOs) and government agencies will help to inform policy and programming.

2. Operational challenges were rated as the equal highest challenge (along with government and regulation challenges) that entrepreneurs face when running their water supply schemes. Operational challenges included high expenses such as electricity and rent, leaks and pipe damage, and equipment breaking down.

Recommendation: Increased communication between different levels of government and enterprises about construction works that may damage pipes/disrupt services. In addition, support is warranted for professional feasibility studies so that entrepreneurs can hire qualified companies to conduct feasibility assessments to determine the best location for the water sources and treatment plants, and plan their water schemes optimally.

FIGURE 16 RESEARCHERS INTERVIEWED COMMUNE COUNCIL STAKEHOLDERS



3. Government and regulation challenges were rated as the equal highest challenges that entrepreneurs faced when running their water supply schemes. Entrepreneurs reported that constraining policies and regulations included caps on water tariffs, insufficient communication about constructions works, and inadequate compensation policies for damage to pipes as a result of road construction (for example). Government stakeholders did not rate this challenge highly, unlike the entrepreneurs, indicating that the government stakeholders may not be fully aware of the challenges that entrepreneurs face with respect to government policies and regulations.

Recommendation: CSOs and associations can advocate to government on behalf of enterprises' needs so that their real day-to-day challenges are understood and responded to. This could include calling on the government to develop communication and compensation policies for damage to pipes and disruptions to services as a result of road construction.

4. Financial challenges were identified as the equal second-most significant challenge for entrepreneurs (along with limited demand for water services). In most cases entrepreneurs reported that they hadn't yet made a profit (noting that five of the water schemes were less than five years old). High interest rates were identified as a particular issue, and entrepreneurs said that they would like support to access low interest loans and subsidies to connect remote properties within their service areas.

Recommendation: Facilitate financial advice and support for entrepreneurs to access low interest loans tailored to water supply scheme contexts. CSOs/donors/government could assist with upfront finance (to support establishing schemes and in particular service remote properties) and develop financing innovations (i.e. low interest loans and social banking options). There is also a need to educate and support entrepreneurs to better understand the financial benefits and risks of water enterprises so that their expectations of profit levels and return on investment are realistic.

5. Limited demand for water services was also identified as the equal second-most significant challenge that entrepreneurs encountered when managing their water supply schemes. Issues related to market access included low or irregular demand for water supply due to seasonal variations and the challenges (including high costs) of connecting to remote properties.

Recommendation: Community education campaigns on the benefits of clean water and connection to piped water schemes (for health and convenience) are needed to boost demand for services, and to support entrepreneurs to achieve economies of scale. CSOs/ government could provide support to remote properties to connect to water supplies in order to assist water enterprises to reach more people and make scheme extensions financially viable. A number of financing options could be considered such as output-based aid and financing the extension of the main pipeline, as well as conducting feasibility studies for other decentralised solutions.

6. Technical training and support was identified by entrepreneurs as their greatest need (area of greatest requested support), and this included calls for training and support related to water scheme management and water quality monitoring.

Recommendation: New and existing training programs (including formal training, mentoring and peer-to-peer learning, for example) that take account of gender differences such as child care duties, financial barriers, and limited mobility are needed. This may involve holding training in regional locations to make it easier for female entrepreneurs to attend, and support for family members to attend training together with entrepreneurs.

7. Support for entrepreneurs from their husbands, families, friends, and personal networks was found to be a key enabler for supporting them to set up piped water enterprises.

Recommendation: CSOs, associations and governments can involve men (particularly husbands) in the promotion and socialisation of female-led private water enterprises, recognising the importance of family in these businesses, and building on existing connections and support systems for women.

8. Entrepreneurs overall reported that they would encourage other women to set up a water supply scheme if they had access to information and finance. Some entrepreneurs also noted that they would offer their support and advice to other women. Financial independence and social motivations (for example contributing to improving the health of the community) were key drivers for entrepreneurs involved in this study.

Recommendation: Support learning between water enterprise owners and staff, and possibly, support women to connect with and learn from each other. Actors will need to be conscious of not adding to women's time burdens, so such support would also need to be resourced and family and enterprise responsibilities would need to be taken into account.

FIGURE 17 WATER SUPPLY INFRASTRUCTURE THAT IS PART OF A WATER ENTERPRISE IN RURAL CAMBODIA



Further research needs

While this study was one of the first to explore the barriers and enablers experienced by female water supply scheme entrepreneurs, and how gender norms influence these barriers and enablers, additional knowledge gaps were also identified. Further research is therefore needed in the following areas:

FIGURE 18 INTERVIEWS WITH GOVERNMENT STAKEHOLDERS IN RURAL CAMBODIA



Gender-related research

- Paid and unpaid work: the intersection between the 'double burden' of household duties (including child care) and how this impacts the management of water supply schemes, and how negative impacts can be alleviated by a range of actors (from the state to the household)
- Financial aspects: Actual financial benefits (or losses) experienced by female water entrepreneurs, and how these differ from those of other water supply enterprises. Reported high interest rates on loans taken out by entrepreneurs, and whether or not there are gender-based influences involved which limit women being able to access low interest loans
- Training needs: What types of technical training are most needed by female entrepreneurs, and consideration of gender-related barriers that may prevent women from taking up such training opportunities.
- Networks: The potential benefits of women-only forums or networks for female entrepreneurs to share experiences and support each other, in addition to existing support mechanisms provided by the Cambodian Water Association and provincial governments.

Enterprise-related research

- Government and regulation issues: Including caps on tariffs and burdensome administrative requirements, and how these impact the management of water supply schemes
- Demand creation: The potential for behaviour change communications to influence demand for piped water services.
- Service expansion: Options for connecting remote households to piped water schemes, and how entrepreneurs could best be supported to expand their schemes (including consideration of a range of water supply options via various governance models).

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This summary draws on the following report: Grant, M., Soeters, S., Megaw, T. and Willetts, J. (2017), Female Water Entrepreneurs in Cambodia: Considering enablers and barriers to women's empowerment. Enterprise in WASH – Research Report 9, Institute for Sustainable Futures, University of Technology Sydney.
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ENTERPRISE IN WASH

'Enterprise in WASH' is a joint research project led by the Institute for Sustainable Futures - University of Technology Sydney (ISF-UTS), which investigates the role of private and social enterprises in the delivery of water, sanitation and hygiene (WASH) services for the poor. For other Enterprise in WASH publications, see www.enterpriseinwash.info

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