

Gender Action Plan

FP060: Water Sector Resilience Nexus for Sustainability in Barbados (WSRN S-Barbados)

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**GREEN
CLIMATE
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Gender Action Plan

Table 1. Activities for mainstreaming gender into the proposed project.

Activities	Indicators and Targets	Timeline	Responsibilities	Costs USD
<p>Impact Statement: This project mainstreams gender into all activities – fostering of utility/university/community/private sector partnerships, , promotion of stakeholder engagement, exchanging of knowledge, building of workforce, and supporting of entrepreneurship opportunities – to increase resilience of people and the water sector of Barbados to climatic natural disasters like droughts, tropical storms and hurricanes. As managers of homes, caregivers, service workers in the tourism industry, and heads of 62.2 % of poor households, women in Barbados are more vulnerable to water disruptions. They, however, make up a smaller percentage of the students or workforce aligned with water infrastructure services at a time when Barbados and the Caribbean region should make major investments in this infrastructure.¹ While this project provides benefits that cut across several industries, sectors, communities, and vulnerable groups, it also increases participation of women in water sector resilience both within the Barbados Water Authority (BWA) and across Barbados. It establishes a gender and certificate program to increase understanding and exchange knowledge on gender and infrastructure (all BWA employees and contractors will take). It builds capacity and increases awareness of women and vulnerable persons for water sector resilience. It benefits Barbados’ only public hospital and all of its polyclinics, community centers, schools, farms, and households, especially those with differently abled persons, welfare recipients, pensioners, and the economically disadvantaged.</p>				
<p>Outcome 1: Improved/Increased Resilience to Storm Events and BWA’s Carbon Footprint Reduced. <i>Increased capacity of population to understand, monitor, and operate Renewable Energy (RE) systems, and improved understanding of gender barriers associated with RE industry in Barbados.</i></p>				
<p>Output 1.1: Photovoltaic Renewable Energy (RE) Systems and Natural Gas Microturbines Installed and Integrated. <i>54% of the Barbadian population benefits immediately from resilience in water provision from BWA, including vulnerable communities, most densely populated areas, the capital Bridgetown, and several rural communities, setting an example for countrywide adoption of RE-water integration. Workshop and analysis to understand how gender intersects with RE in Barbados completed. Workshops and trainings on RE systems completed with particular attention paid to recruitment of women.</i></p>				
<ol style="list-style-type: none"> 1. RE at Belle, Bowmanston and Hampton Pumping Stations that benefit ~54% of population. UWI/USF will work with DREAM project² to hold stakeholder meeting on gender in PV/natural gas sector in Barbados, identify opportunities for overcoming gender disparities in field and at BWA, and disseminate report. 2. Conduct workshop with entrepreneurs and other relevant stakeholders, including training programs, for addressing gender integration in RE sector in Barbados. 3. Train BWA employees on RE systems, operation & maintenance. 	<p><i>Indicator:</i> List of RE participants in stakeholder consultation. <i>Target:</i> 50% female participation.</p> <p><i>Indicator:</i> Project reports. <i>Target:</i> Baseline gender analysis of renewable energy sector in Barbados produced, including recommendations for integrating gender into RE sector.</p> <p><i>Indicator:</i> List of workshop participants. <i>Target:</i> 50% female participation</p> <p><i>Indicator:</i> Evaluations of workshop. <i>Target:</i> >Average</p> <p><i>Indicator:</i> # BWA staff or interns trained through project. <i>Target:</i> Above baseline of 0 to at least 20% of persons trained being female.</p>	<p>By 2020</p> <p>By 2020</p> <p>By 2020</p> <p>By 2020</p> <p>By 2023</p>	<p>BWA, USF, UWI</p>	<p>Included in budget for knowledge management, Outreach, & Capacity Building</p>

¹ Caribbean Development Bank (2014) Public-Private Partnerships in the Caribbean: Building on Early Lessons. <http://www.caribank.org/uploads/2014/05/Booklet-Public-Private-Partnerships-in-the-Caribbean-Building-on-Early-Lessons.pdf>

² Disaster Risk & Energy Access Management (DREAM): Promoting Solar Photovoltaic Systems in Public Buildings for Clean Energy Access, Increased Climate Resilience and Disaster Risk Management was funded in 2015 in Barbados. An activity listed is a survey of homeowners for rooftop solar with disaggregated sex data.

<https://www.thegef.org/project/disaster-risk-energy-access-management-dreampromoting-solar-photovoltaic-systems-public>

Activities	Indicators and Targets	Timeline	Responsibilities	Costs USD
Outcome 2: Adaptation and Mitigation Initiatives Expanded through a Revolving Fund. <i>Both men and women access fund equally to make their homes and businesses resilient to climate change.</i>				
Output 2.1: Revolving Adaptation Fund Facility (RAFF) established. <i>RAFF has guidelines that consider gender mainstreaming, PR materials and pathways that reach equal numbers of men and women, and accessed by at least 25 persons, 50% female.</i>				
<ol style="list-style-type: none"> 1. Create RAFF fund with guidelines that address gender considerations, especially for vulnerable female headed households and female farmers. 2. Create multimedia materials for RAFF that reflect gender considerations of RAFF. 3. Disseminate RAFF PR materials to all sexes. 	<p><i>Indicator:</i> RAFF guidelines. <i>Target:</i> Gender addressed in guidelines.</p> <p><i>Indicator:</i> Report on outreach activities. <i>Target:</i> RAFF education and outreach activities feedback > average, 50% females reached.</p> <p><i>Indicator:</i> # persons benefitting from fund. <i>Target:</i> At least 25 persons benefited from the fund; 50% Female</p>	<p>By 2023</p>	<p>BWA in partnership with Credit Union</p>	<p>\$100,000 plus included in budget for knowledge management</p>

Activities	Indicators and Targets	Timeline	Responsibilities	Costs USD
Outcome 3. Improved resilience to climate change and disruptions in water supply. <i>Gender mainstreamed into development of water masterplan, decision making for mains replacement, potable water storage, and RWH with equal numbers of men and women benefitting from interventions.</i>				
Output 3.1: Climate Change Adaptation (CCA) Water Master Plan Completed. <i>Gender integrated into master plan.</i>				
1. Integrate socio-economic and gender impacts in Climate Change Adaption Water Master Plan.	<i>Indicator:</i> Climate Change Adaption Water Master Plan. <i>Target:</i> Master plan addresses gender impacts.	By 2020	BWA, Consultant, UWI, USF to ensure gender integrated	Knowledge management & gender budget
Output 3.2: 16 km of Mains Replaced. <i>Decision matrix for mains replacement considers gender and socio-economic factors.</i>				
1. Integrate socio-economic factors and gender into decision matrix for prioritizing mains replacement activities. Contractual TOR considers gender.	<i>Indicator:</i> # women impacted based on report on mains replacement. <i>Target:</i> report shows that gender was considered in site selection and contractor selection; gender disaggregated data included.	By 2023	BWA, Contractors	Ibid
Output 3.3: Real time decision making tool Implemented. <i>Equal number of men and women at BWA trained on use of Optiram for decision making purposes.</i>				
1. Install 1 Optiramp program and train BWA employees on its use to reduce disruptions in water supply.	<i>Indicator:</i> # persons trained on Optiramp at BWA. <i>Target:</i> 50% female BWA employees trained.	By 2023	BWA, consultant	300,000
Output 3.4: Potable water storage systems installed. <i>Installations at 1500 residences with vulnerable populations based on a needs assessment that ensures female-headed households are addressed, the country's only hospital, its 9 polyclinics, 10 schools, and procurement of 5 additional tankers to service new installations in event of water disruptions. Training of communities and households on potable water storage systems and ensuring that women are meaningfully participating in these training sessions.</i>				
1. Conduct needs assessment and develop a GIS coded database with information on vulnerable population disaggregated by gender.	<i>Indicator:</i> Database of vulnerable populations and needs integrated into GIS database. <i>Target:</i> database includes a gender layer.	By 2020	BWA, UWI, USF, Community Groups, Contractors	5,000,000
2. Use needs assessment to install personal tank systems.	<i>Indicator:</i> # personal tank systems installed. <i>Target:</i> 1500 systems installed at 100% vulnerable residences.	By 2023		
3. Install water storage at 1 hospital, 9 polyclinics, 10 schools, serving the entire Barbados population.	<i>Indicator:</i> # List of workshop participants. <i>Target:</i> 50% female participation	By 2023		
4. Conduct education & outreach activities on water storage systems.	<i>Indicator:</i> Evaluations of workshop. <i>Target:</i> >Average			
Output 3.5: Rainwater Harvesting (RWH) Programme Implemented. <i>Women and men equally benefit from installation, jobs, and education associated with RWH.</i>				
1. Conduct residential needs assessment & place in a GIS coded database with information on vulnerable population disaggregated by gender.	<i>Indicator:</i> # residential rainwater harvesting systems installed. <i>Target:</i> 400 systems; 50% installations with households with female decision makers.	By 2023	UWI, USF, BWA, Contractors, Vocational training	1,572,000
2. Install RWH at Schools, Community Centers, Polyclinics and use sites to educate all about water sector resilience.	<i>Indicator:</i> RWH at 22 schools, 9 polyclinics, and 20 community centers used as educational sites for public. <i>Target:</i> # people engaged & reached; 50% female.	By 2023		
3. Install RWH at farms with farm selection considering gender impacts of intervention.	<i>Indicator:</i> # farmers benefiting from RWH installation. <i>Target:</i> 50\$ female farmers benefit from RWH intervention.	By 2023		
4. Expand collaboration with religious organizations to train young men and women on RWH with practical experience integrated with residential installations.	<i>Indicator:</i> # Number of men and women involved in new technologies to improve adaptation at the community level. <i>Target:</i> 100 persons.	By 2023		

Outcome 4: Greater capacity, knowledge and awareness to build Climate Resilience in the Water Sector. <i>Gender mainstreamed in climate resilience for water sector.</i>				
Output 4.1: Personnel Trained and Certified. <i>All BWA employees certified in Gender & Infrastructure, course mainstreamed in Barbados. 50% female representation on specialized training for water sector resilience.</i>				
1. Establish gender and infrastructure team for the project and development of a gender policy for the BWA that is adopted.	<i>Indicator:</i> Gender and infrastructure training materials. <i>Target:</i> Materials developed for in person and online training.	By 2019	UWI, USF, BWA	160,000 for gender certificate program and training; 414,000 for knowledge management system; \$467,500 for training
2. Develop gender and infrastructure training materials and certificate program accessible by differently prepared learners.	<i>Indicator:</i> BWA policies. <i>Target:</i> BWA gender policy developed and adopted.	By 2019		
3. Certify BWA employees and relevant stakeholders on Gender and Infrastructure.	<i>Indicator:</i> # certificates awarded to BWA staff on Gender & Infrastructure. <i>Target:</i> All BWA staff certified in Gender and Infrastructure.	By 2020		
4. Target recruitment for training for water sector resilience to increase representation of the under-represented sex in key positions.	<i>Indicator:</i> # persons certified with ENVISION, CCORAL. <i>Target:</i> equal participation of males and females.	By 2023		
Output 4.2 Public Awareness Campaign Implemented. <i>Gender integrated into education and PR materials and these reach both males and females in Barbados.</i>				
1. Offer youth-focused activities at the nexus of gender and water sector resilience.	<i>Indicator:</i> report of education and outreach youth focused activities. <i>Target:</i> materials presented address gender.	By 2023	UWI, USF, BWA	352,500 + knowledge management
2. Produce materials for public education and outreach that address gender.	<i>Indicator:</i> Reports on outreach activities. <i>Target:</i> 50% female participants reached.			
3. Produce and disseminate educational material to diverse audiences in Barbados and internationally on gender mainstreaming for water sector resilience in Barbados.	<i>Indicator:</i> Outreach activities and evaluations of those activities. <i>Target:</i> 50% female representation, greater than average on evaluations.			
Output 4.3: Policies for water sector resilience and PPPs created. <i>Gender integrated into policies for water sector resilience and PPPs.</i>				
1. Hold workshops on water sector resilience and Public Private Partnerships (PPPs) with balanced gender participation and input.	<i>Indicators:</i> # attendees at stakeholder workshops, policy papers on water sector resilience. <i>Targets:</i> 50% female participation in stakeholder workshops. Policy addresses gender.	By 2020	BWA, Consultant	160,000
2. Integrate gender into new policies for water sector resilience and PPPs in Barbados to combat climate change.	<i>Indicators:</i> policy paper on water sector resilience. <i>Targets:</i> 50% female participation in stakeholder workshops. Policy addresses gender.	By 2023		

Implementation Arrangements

WSRN-S Barbados will mainstream gender throughout the project. This will be achieved by:

- Establishing a gender and infrastructure team for the project that brings together expertise from the University of the West Indies (Institute of Gender and Development Studies (IGDS), Centre for Resource Management & Environmental Studies (CERMES) and the University of South Florida (Civil and Environmental Engineering and Engineering Education) with the Barbados Water Authority and other relevant stakeholders to develop a gender policy for the BWA that is adopted and integrated across the utility.
- Building on the 22-year old Caribbean Institute of Gender and Development (CIGAD) summer program put on by the IGDS. Since 2015, the University of South Florida has led a “Women & Water” workshop for CIGAD and, with contributions from relevant stakeholders (e.g. Caribbean Community Climate Change Center, Caribbean Development Bank, Barbados Government of Barbados: Bureau of Gender Affairs, Association of Women in Agriculture), this will be expanded into a training component on gender and infrastructure to be offered in person and online, in formats that are accessible by differently prepared learners.
- Requiring that all BWA employees and relevant stakeholders obtain certification on gender and infrastructure developed as part of this project.
- Targeting training for water sector resilience to increase gender equity in key positions.
- Considering gender in Terms of References for contractual services associated with this project and other projects supported by the BWA.
- Targeted recruitment for BWA hires associated with this project to ensure women are reached and encouraged to apply.
- Requiring gender disaggregated data on activities associated with this project, with the eventual goal of mainstreaming such reporting into BWA reporting practice.
- Mainstreaming gender into new policies for water sector resilience, Public Private Partnerships in Barbados to combat climate change, and the RAFF.
- Producing and disseminating educational material to reach diverse audiences in Barbados and regionally (e.g. Caribbean Water and Wastewater Association conference³⁴) on gender mainstreaming for water sector resilience in Barbados.

³ Isaacs, W. and Trotz, M. (2016) *Gender mainstreaming in water and wastewater climate change adaptation projects: a case study for the Caribbean. Proceedings of the Caribbean Water and Wastewater Association 25th Annual Conference & Exhibition, Port of Spain, Trinidad and Tobago, October 24th-27th, 2016.*

⁴ Isaacs, W. and Trotz, M. (2017) *Gender, Climate Change and Water and Wastewater Management Practices in Barbados. Proceedings of the Caribbean Water and Wastewater Association 26th Annual Conference & Exhibition, Georgetown, Guyana, October 16th-20th, 2017.*

Conclusion and Recommendations

The recommendations from the baseline gender analysis completed for this project were to:

- identify clear gender objectives and targets prior to project implementation to ensure their incorporation in the project,
- allocate budget to appoint a gender focal point that would coordinate these activities,
- mainstream gender in existing and new policies for water sector resilience in Barbados to combat climate change,
- include socio-economic information as a criterion for prioritization of locations for project interventions,
- target training for water sector resilience to increase representation of women in key positions.

This gender action plan incorporates the recommendations listed above with:

- gender objectives and targets listed in Table 1,
- budget allocated to gender for the creation and implementation of a certificate training program that gets incorporated into project, BWA, and local university program with international reach,
- gender policy developed for, and with BWA and gender integrated into policies being funded by project for water sector resilience and PPPs,
- socio-economic information integrated into decision matrix for project activities with particular attention paid to vulnerable populations and gender,
- recruitment activities included that will ensure increased representation of women in key positions.