Join the GrEEEn Webinar series
No.4: Presentation and Validation of Findings from the 2020 WASH Market Scan

📅 Tues, 14 July 2020 🕒 11:00AM - 12:30PM GMT


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Find out more about the GrEEEn project here: https://bit.ly/SNV-GrEEEn
Presentation outline:

- Objectives of the webinar
- Brief overview of the GrEEn project
- WASH situation and national coverage
- National policies/strategies/institutional arrangement
- Overview of MSME operations and household demand in the sector
- Value chain and enterprise opportunities
- What GrEEn project offer?
- Questions for reflection/plenary
Objectives of the webinar

• To validate the findings of the WASH market scan
• Introduce and receive feedback on GrEEn’s planned interventions in the WASH sector
• Seek your input and feedback on:
  o Have the right sub-sectors been considered? What additional sub-sectors can be useful for job and enterprise development in the WASH sector?
  o How do we deal with the perception and attitudes to create viable green WASH businesses?
  o Are there local WASH companies that can offer internships and job placements? What will be the value proposition to offer?
  o What are best practices in demand creation?
Boosting Green Employment and Enterprise Opportunities in Ghana

Sustainable and climate resilient local economies, green jobs and development

**Result 1:** Local economies are stimulated and short-term job opportunities for youth, women and returnees are created through green and climate resilient investments.

**Result 2:** Employability and entrepreneurship capabilities of youth, women and returnees are improved in sectors of economic opportunities, for the benefit of green and climate resilient local economies.

**Result 3:** Increased access and usage of financial services, leveraging remittances, adapted to the needs of (i) youth, women and returnees benefiting from cash for work schemes and (ii) local communities and MSMEs.

**Result 4:** SMEs, offering decent and sustainable jobs to youth, women and returnees, are incubated and/or accelerated and contribute to green and climate resilient local economies.

**Project duration:** 11/2019 – 11/2023

**Target regions:** Ashanti & Western

**Target sectors:**
GrEEn
Market Scan for WASH Sector

Enoch Cudjoe, Senior Skills Advisor, GrEEn Project

14th of July 2020
❑ Secure safe and accessible/affordable water, sanitation and hygiene services to prevent further spread

❑ Scout for innovative but accessible and affordable WASH technologies for all

❑ The capacity of young entrepreneurs should be developed within the WASH value chain; to clearly define a market and customer-focused product for the Ghanaian market

❑ Tailored BDS to businesses allowing them to continue operations, e.g. revised marketing strategies, financial restructuring etc

❑ Ensure access to affordable finance to overcome liquidity problems; capacity on online marketing and payment platforms as well as mobile money initiatives
Water & Sanitation Situation

- Access to safe drinking water and improved environmental sanitation is essential for achieving wider outcome in the economy (livelihood, education, health etc).

- There is still lack of safe water, sanitation and hygiene facilities

- Percentage of the population with access to safe drinking water (basic level) nationally increased from 64% in 2000 to 78% in 2015

- National access to basic sanitation increased from 11% in 2000 to 14% in 2015

- Sustainable Development Goal 6: **Clean water and sanitation**
  - Safely managed sanitation
  - Safely managed water services
# National WASH coverage

<table>
<thead>
<tr>
<th>Geographical Area</th>
<th>% Coverage of improved water supply</th>
<th>% Coverage of improved sanitation</th>
<th>% Coverage of handwashing facilities with soap &amp; water</th>
<th>Open defecation</th>
<th>% Basic drinking water, sanitation &amp; hygiene</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>86</td>
<td>65.2</td>
<td>48.5</td>
<td>21.7</td>
<td>12</td>
</tr>
<tr>
<td>Urban</td>
<td>95.8</td>
<td>80.7</td>
<td>56.3</td>
<td>11.4</td>
<td>17.8</td>
</tr>
<tr>
<td>Rural</td>
<td>77.5</td>
<td>52</td>
<td>41.8</td>
<td>30.6</td>
<td>7.1</td>
</tr>
<tr>
<td>Western region</td>
<td>82.1</td>
<td>66.3</td>
<td>58.1</td>
<td>15.5</td>
<td>11.5</td>
</tr>
<tr>
<td>Ashanti region</td>
<td>92.5</td>
<td>77</td>
<td>51.7</td>
<td>10.9</td>
<td>14.1</td>
</tr>
</tbody>
</table>

Ghana Multiple Indicator Cluster Survey (MICS) 2017/18
National Policies/strategies

Government of Ghana

Ministry of Local Government and Rural Development
ENVIRONMENTAL HEALTH AND SANITATION DIRECTORATE

National Environmental Sanitation Strategy and Action Plan
NESSAP

Environmental Sanitation Policy (Revised 2009)

Sustainable Water and Basic Sanitation for All by 2025

Materials in Transition
March 2009

MINT

WATER SECTOR STRATEGIC DEVELOPMENT PLAN (2012-2025)

SNV

MINISTRY OF WATER RESOURCES, WORKS AND HOUSING

MARCH 2014
Relevance

- It pursues private sector engagement by applying a Market-based approach to WASH service delivery.
- It addresses all IWRM related issues and provided the impetus for the development of the National IWRM Plan in 2012 and the National Climate Change Policy in 2013.
- It highlights Public Private Partnership at various levels
- Rural Sanitation model & strategy: emphasis on developing a sanitation marketing (SanMark)
- Polluter pays principle (bear the cost)
WASH Sector Institutional Arrangements

**International**
- DP Working Group CONIWAS

**Civil Society**
- Users
- Community-Based Organisations (CBOs)
- Contractors and artisans
- International companies
- Consultants
- Universities

**National**
- National Development Planning Commission (NDPC)
- Ministry of Sanitation and Water Resources (MSWR)
  - Environmental Health and Sanitation Directorate (EHSD)
  - Water Directorate
- Ministry of Finance (MoF)
- Ministry of Health (MoH)
- Ministry of Education (MoE)
- Ministry of Local Government and Rural Development (MLGDRD)
- Local Government Service (LGS)

**District**
- Metropolitan/Municipal and District Assemblies (MMDAs)
- Environmental Service Providers Association (ESPA)

**Supports (funds, trainings)**
- Provides guidance and implementation
The Market & non-Market environment
Barriers to operation

**Tough macro-economic Environment**
- High interest rate
- High cost of utility
- Currency depreciation

**Operation**
- Obsolete tools/technology
- Lack of access to start up capital
- Lack of access to banking services
- Perception/attractiveness
- Inadequate business support services
- Land tenure challenges
- Late payments of public procurement
- Skilled labour (transferable & technical
- Poor enforcement

- Limit cash flow
- Limit technology uptake
- Affect efficiency
- Limit growth
Support Mechanism Available

- Supportive Policy & Regulation
- Tax Incentives
- Vibrant Association
- Incubation & Training support
- Innovative Start up financing
Innovative Financing (start-up) opportunities

- **Subsidized credit**
  - NBSSI loans @ 5%
  - 1-3yrs ($3-10K), manufacturing, agri-business & Service

- **Microfinance and micro credit**
  - Fidelity Bank, HFC Boafo

- **Equity Financing**
  - Available within & outside the sub-sector

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**Tax Incentives**

**Income Tax Holidays**

- Young entrepreneurs up to 35 years
  - Located at regional capital
    - Ashanti & Western 12.5% rebate
  - Outside regional capital 10%

**Tax Holidays**

- Waste processing (including plastics and polythene)
  - 7 years tax holiday but reduced to 1%
- Cocoa by product businesses
  - 5 years tax holiday but reduced to 1%

**Import tax exemption**

- Reduction of up to 25% of import duties on Parties, products and machinery
Incubating, training and support for sanitation start-ups

**Government Initiatives**
- National Board for Small Scale Industries (NBSSI)
- National Entrepreneurship and Innovation Plan (NEIP)

**Incubators in Ghana**
- Ghana Innovation Hub
- Kumasi Hives
- NBU
- I-Code etc
- Ghana Start-Up capital fund

**International Incubators**
- Toilet accelerators/Toilet Board coalition
- Aqua for All
- CEWAS
- Toilet for All
- Waterpreneurs
- Young Water Solutions
Association and Networks

- Association of Plastic Recyclers (APR)
- Association of Contract Cleaners
- Association of Ghana Industries (AGI)
- Environmental Service Providers Association (ESPA)
- Private Water Tanker Owners Association
- Toilet Board Coalition (International)
- Coalition of NGOs in WASH (CONIWAS)
## Business Opportunities

<table>
<thead>
<tr>
<th>Solid waste</th>
<th>Recycling to compost - briquettes</th>
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<tbody>
<tr>
<td></td>
<td>Plastic/metal/paper up/recycling</td>
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<td></td>
<td>Waste to energy from landfills,</td>
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<td></td>
<td>Biogas</td>
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<td>Abattoir waste into feed (need eco model)</td>
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<td></td>
<td>Collection and transportation</td>
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<tr>
<td></td>
<td>Biodigesters-constr/maintenance</td>
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<td>Recycling of (E)-Waste</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Waste water/liquid waste/ faecal sludge</th>
<th>Sludge to fuel (biodiesel, briquettes)</th>
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<tbody>
<tr>
<td></td>
<td>Sludge to compost</td>
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<tr>
<td></td>
<td>Collection and transportation - equipment quality control, testing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toilets facilities</th>
<th>Design, manufacturing, marketing, maintenance</th>
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<tbody>
<tr>
<td></td>
<td>Rental of mobile toilets</td>
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<tr>
<td></td>
<td>Construction and management of toilet blocks for schools, markets or communities</td>
</tr>
</tbody>
</table>
## Business Opportunities

<table>
<thead>
<tr>
<th>Hygiene services</th>
<th>Financial services (micro/meso credit to various target groups):</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Production/marketing of hand sanitizers or soap</td>
<td>• Manufacturers of hardware (toilets, pipes, digesters etc...)</td>
</tr>
<tr>
<td>• Production/marketing of solar powered Veronica buckets</td>
<td>• Transporters</td>
</tr>
<tr>
<td>• Janitorial services</td>
<td>• waste collectors/pickers</td>
</tr>
<tr>
<td>• Laundry services</td>
<td>• toilet operators –</td>
</tr>
<tr>
<td>• Handwipes</td>
<td>• processors/recyclers of waste</td>
</tr>
<tr>
<td></td>
<td>• mobile payment system</td>
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</table>
### MSMES Delivering WASH Products and Services

**Micro Enterprises**
- **34%** Sole Proprietorships
- **Average age of business**: 9 years

**Small Enterprises**
- **55.6%** Sole Proprietorships
- **Average age of business**: 8 years

#### Products & Services

**WATER**
- 1. Local water vendors
- 2. Operators of water tanker services
- 3. Borehole Drilling Companies
- 4. Vendors of borehole water
- 5. Small to medium scale
- 6. Privately operated public toilets

**SANITATION (LIQUID)**
- 1. Dailly/whale services
- 2. Spare parts supplies
- 3. Plumbing services
- 4. Construction of manholes and Kivis
- 5. Provision of mobile toilets

**SANITATION (SOLID)**
- 1. Solid Waste Management Entities
- 2. Motor King Solid Waste Collectors
- 3. Scrap dealers
- 4. Waste Recycling Companies
- 5. Scavengers of used water plastics
- 6. Privately operated public toilets

**HYGIENE**
- 1. Laundry
- 2. Office space cleaning
- 3. Pest control and fumigation services
- 4. Street cleaning
- 5. Distilling of slimes
- 6. Operating of Public bath complex

**HYBRID**
- A combination of products services offered by producers of water, sanitation (liquid and solid) and hygiene.

#### Average Turnover
- **Micro**: GHS 2,414 monthly
- **Small**: GHS 4,391 monthly

#### Average Financing Need
- **Micro**: GHS 18,830
- **Small**: GHS 18,000

#### Preferred Loan Features
- **28%** Maximum Interest Rate
- **GHS 1,191** Average Repayment Amount
- **2.8 years** Average Repayment Period

Source: SNV P2P, 2017
Household WASH Needs

**Household Income and Expenditure**

- **ECONOMIC STATUS**: 73% of household heads are self-employed.
- **HOUSING STATUS**: 37.6% live in family houses, 28.4% in rented houses, 33.3% own their houses, 0.7% are caregivers.
- **EDUCATION**: 41.1% have basic education, 23.4% have secondary education, 12.8% have tertiary education, 22.7% have never been to school.
- **PREFERRED LOAN FEATURES**: 30% maximum interest rate, 7.3% average interest rate, 85.7% want to pay monthly.
- **AVERAGE HOUSEHOLD SIZE**: 6 with an average of 3 dependants.
- **AVERAGE HOUSEHOLD INCOME**: GHS 641

**WATER**

- Piped Water Connection: 62%
- Drilling of well/borehole: 20%
- Acquisition of water storage tank: 24%
- Water purification appliance: 10%
- **GHS 32.41**

**SANITATION (LIQUID)**

- Water Closet (WC): 64%
- Traditional Pit Latrine: 2.3%
- **GHS 27.89**

**SANITATION (SOLID)**

- Desludging of toilet: 30%
- **GHS 11.23**
- Pay for waste collection services: 61%
- **GHS 255.28**
- Buy sanitation items: 39%
- **GHS 499.62**

**AVERAGE MONTHLY EXPENDITURE**

- GHS 32.41
- **GHS 1,565**
- **GHS 1,369**
- **GHS 5,221**
- **GHS 2,675**

**AVERAGE LOAN REQUIREMENT FOR WASH PRODUCTS & SERVICES**

- Water Clover (WC) (including Septic Tank): GHS 3,055
- KVIP VIP: GHS 2,443
- Traditional Pit Latrine: GHS 500
- Desludging of toilet: GHS 450
- Septic Tank: GHS 3,000

**Source:** SNV P2P, 2017
What are the Skills Set Gaps?

- Occupational safety & Health
- Administrative sys deficiency
- Standardization (sizing & designing of sys, protocol etc)
- Promotion & marketing (mkt devt plans)
- Market intelligence (user target etc)
- Financial controls (Financial literacy)
- Minor routine maintenance
- Client relationship mgmt
Value chains and enterprise solutions
Sanitation Business Models

Design of latrines, business/service models appropriate for target market

Manufacturing of new or existing designs

Aggregation of sanitation product components and point of purchase

Any form of credit given to businesses for their sanitation-related operations

Disposal of any remaining hazardous material, post-treatment

Pre-purchase

Purchase & Usage

Post-usage

Supply Chain Financing

Product Design

Manufacturing

Distribution

Sales & Marketing

Aggregation & Purchase

Service & Maintenance

Capture & Storage

Removal & Transport

Treatment

Disposal

Consumer Financing

Development and utilization of channels through which sanitation products/services physically get to target market

Creation of sales & marketing materials, teams and models to increase awareness and trigger uptake of sanitation products/services

Service, cleaning, and maintenance of installed sanitation products

Safe and hygienic removal and transport of feces for processing

Safe and hygienic treatment of feces into non-hazardous or productive by-products

Source: WSUP, 2017
Water Business Model

Production/extraction of underground water

Large scale Storage/Treatment

Distribution

Routine maintenance/repairs

Storage/use

Water based livelihood

System administrator

Billing and meter reading officers

Revenue collectors, Security

Plumbers/ pump attendants

Private shop to supply chemicals for treatment + cleaning

Vendors @ water points

Professionalising plumber for extension & maintenance (gang)

Tricycle water vendors

Bulk cluster kiosk water service at transit sites-market, Zongo

Private plumbing and water storage shops

Gang of plumbers with certification from TVET

Detergent/soap making units/hairdressing shops/fabric dyeing

Local eateries

Car washing bay

Brick making/moulding

Butchery shop (Abattoir)

Horticulture/livestock raising

Agro-based processing unit

Agriculture

Aquaculture linked to irrigation horticulture/rice

Unreliable water supply arising poor O&M-weak WSMT

Weak cost recovery arising from poor billing + high cost of production

Difficulty in accessing low interest credit for retooling/tools and business advisory support

Facilities designed to provide domestic water with little intent for multiple use (enhance water based livelihood)

Build the Governance Structure, O&M and Financial Management

Build skills on financial literacy and maintenance

Little/absence of WASH linkage with livelihood in the planning, design and implementation of water services

Difficulty in accessing low interest credit for retooling/tools and business advisory support

Identify existing and new water based livelihood opportunities

Sustain water services through widening its use to include water based livelihoods to generate income.

Source: bridgewater consult, 2018
Ferrous Metal Scrap Value Chain

End-of-life (freshly imported use) cars, machinery etc.

Ferrous metal waste from Households, commercial & industrial sources

Value pickers (n=100’s)

Dealers/Agents (n=100’s)

Domestic ferrous scrap market (n>16000tpa)

Export Scrap metal (n=7000 tpa)

Scrap metal export firms (n=10’s)

Source: Global communities, 2017
E-waste value chain

End-of-life (freshly imported use) electrical & electronic equipment etc. (n=15500tpa)

ICT equipment market
- Local ICT repair shops (n=100’s)
- ICT component export (n<10tpa)

Non-ferrous metal market
- Local manufacturing Industries (n=100’s)
- Scrap metal export firms (n=10’s)

Dealers/Agents (n=100’s)

Value pickers (n=1000’s)

Source: Global communities, 2017
Plastic Pellets value chain

Exports
Marketing
Transport
Post harvest
Production
Import

Plastic Buyers Association

Converters (Pellets Manufacturers)

Plastic middlemen

Plastic buy-back centers

Distributors

Export Market (China & middle east)

Domestic recycling/upcycling companies

Financial Institution

Value Pickers

Sachet water producers

Street litter

Household

Restaurants/Hotels/Commercial Industry

Public bins

Source: Global communities, 2017
Recycling of Tires

And this is how it works:
• Unemployed youth collect waste tires using tri-cycles
• Mechanically extract the steel from the tires and sell both – steel and rubber
• Recycling company provides the logistics and hauls the tires to a collection point in Tema
• Tires are exported to Togo on Heidelberg Cement trucks
• Cement factory burns tires as fuel supplement
• Diesel
Private sector Financing Opportunities……

- **SINAPI ABA WASH Loans/Credit Facility:** Rollout GHS 30 million on WASH initiatives for the next 5 years.

- **SIMAVI WASH Credit Scheme:** In collaboration with the Dutch Alliance supports communities to construct and own household toilets through the Community Life Improvement Programme (CLIP) with New Energy.

- **Safe Water Network Model:** Provides a market-based solution to water services delivery to peri urban/urban communities in Ghana.

- **The Clean Team Ghana Model:** It is a social enterprise model for providing safe, affordable in home toilets for low income communities at a fee. Customers pay a small weekly fee for the service and we provide the toilet - there's no up-front cost for you to pay. They collect the waste from your house every week in sealed containers and take it away for safe disposal.
- **UNICEF Basic Sanitation Fund (Apex Bank):** UNICEF recently launched a credit scheme for sanitation with fund being managed ARB/APEX Bank. UNICEF was active in mainly rural, but also recently launched a major peri urban/urban WASH programme currently being implemented in partnership with GNWP Dutch Government in Ho, Tamale and Ashaiman, with an overall budget of USD 7 million.

- **SNV/Dutch Embassy P2P Initiative (USD 6m):** Targeting 3000hh and 500MSME (Fidelity Bank): In 2014, the Dutch Embassy initiated the Ghana-Netherlands WASH Programme (GNWP), which focuses on integrated urban water and sanitation in selected municipalities with an indicative budget of Euros 200 million up to 2020. The programmes support MMDAs to prepare master plans for sanitation (including solid waste), the conducting of urban CLTS and the promotion of Public-Private Partnerships.
What does the GrEEn project offer?
Employability and entrepreneurship capabilities of Youth, Women and Returning Migrants

✓ Demand-driven employability and entrepreneurship training
✓ Web-based platform
  ▪ Market linkages
  ▪ B2B
  ▪ Internships and job placement
✓ Support to practical solutions within specific value Chains
✓ Live market information (R&D)
✓ Networking and exchange
✓ Business Plan Competitions
Incubation and Acceleration of SMEs led by Youth, Women and Returning Migrants

- Strengthen business hubs to incubate and accelerate inclusive SMEs
- Incubate and accelerate SMEs
- Support to access crowdfunding opportunities
- Networking and exchange
- Market Research
- "Green biz" Web based platform
  - Market linkages
  - B2B
- Challenge Fund (matching grants)
Questions for discussion:

• Have we considered the right sub-sectors?

• What additional sub-sectors can be useful for job and enterprise development in the WASH sector?

• How do we deal with the perception and attitudes towards green WASH businesses, particularly among youth and women?

• What role can platforms and NGOs play in promoting market based approach to WASH delivery and this project?
Thank you!

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