

Enabling Small Scale Solutions Growth

Local Solutions Lab



2019

Source: Futurepump (2017)¹



Clean Technology Hub
Energy Innovation Center



Clean Tech Incubation & Acceleration Foundation
Energy Innovation Center

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Introduction

Introduction

Rural communities in Nigeria face a myriad of challenges ranging from a lack of basic infrastructure such as quality roads, clean water, reliable electricity, and many others, to social issues such as poor quality education, poor quality healthcare, non-availability of financial services, etc. Economic development in these communities are also hindered due to challenges faced by local artisans and entrepreneurs especially in rural and peri-urban areas, and the negative impact this has on their productivity and income.

Some communities have been progressive in developing local solutions to tackle these challenges (even though most of these solutions are largely crude and not sustainable in the long term, but however very functional) while less progressive communities have been unable to adopt such an approach. Similarly, forward thinking local artisans and small scale entrepreneurs have developed and adopted the use of crude technologies and systems in tackling their challenges while others have been unable to ideate local solutions to their challenges.

Most artisans still wait on the government to proffer solutions to the challenges they face, solutions which however are still largely not forthcoming. In most cases where solutions especially around technology and models are provided, they do not usually fit into the local context and existing system of these local enterprises.



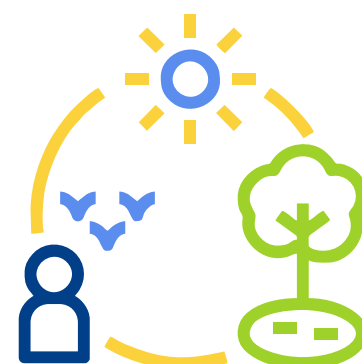
². Scenic View Of Field Against Sky

There is a strong need to galvanize and catalyse community-driven local solutions targeted at solving local challenges through the development and adoption of clean, efficient and sustainable solutions.

This project focuses on identifying and evaluating local challenges faced by small scale enterprises and local stakeholders in select states especially those that hinder economic growth, and gender empowerment.

The objective is also to build a collaborative local eco-system of change makers working on clean, sustainable, climate smart, and economic growth solutions tailored to solve local challenges in their communities.

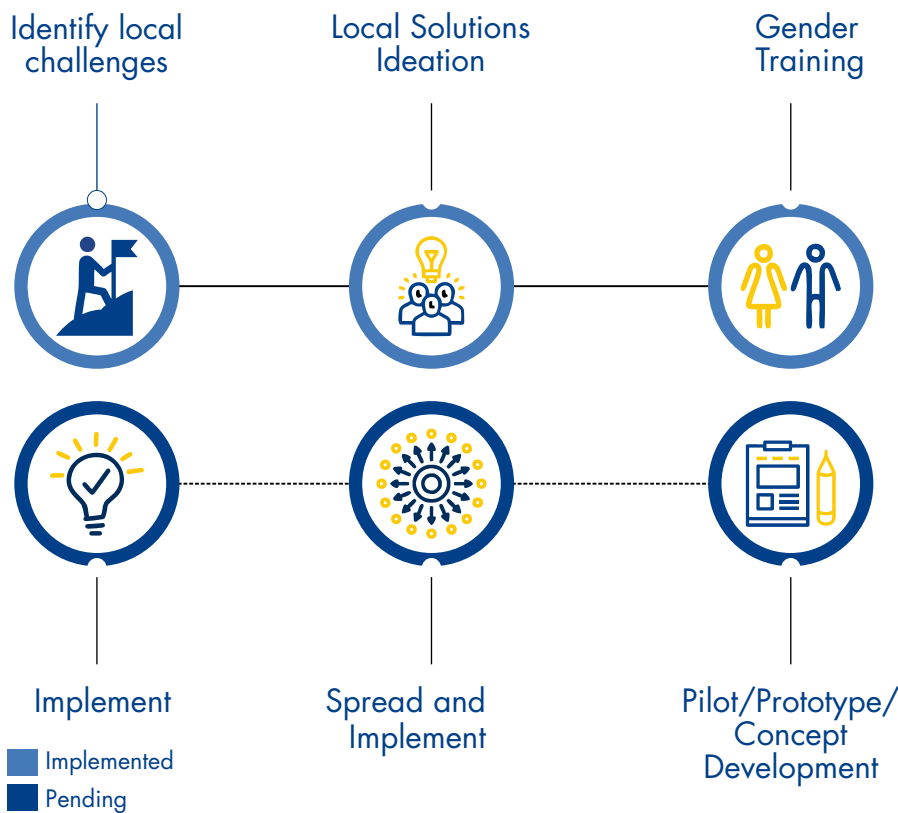
The project focuses on accelerating development paradigms that include sustainable adoption of clean and sustainable mechanisms for communities and small scale enterprises.



The objective is also to build a collaborative local eco-system of change makers working on clean, sustainable, climate smart, and economic growth solutions tailored to solve local challenges in their communities.

². Scenic View Of Field Against Sky: <https://www.gettyimages.com/detail/photo/scenic-view-of-field-against-sky-royalty-free-image/688948113>

Approach



A bottom-led four-pronged approach was adopted,

1. Secondary research on Anambra and Kaduna states to ascertain key economic activities, local challenges, key stakeholders, and other socio-economic indices.

Key outcomes include:

- a. Understanding the economic status, activity and resource base of the states.
- b. Identification of challenges facing small scale enterprises, women, and community stakeholders, as well as efforts if

any in resolving these challenges

- c. Identification of local stakeholders, associations and key influencers in the states.

2. Primary engagement with target group stakeholders in the states.

Key outcomes include:

- a. Validation of identified challenges with local stakeholders.
- b. Education on the importance of bottom-up collaborative and sustainable community-based approaches in addressing local challenges rather than over-dependence on the government.

- c. Awareness creation and stakeholder involvement in the Local Solutions Lab.

3. Local Solutions Lab in the states with target groups to collaboratively ideate on local solutions to local challenges.

Key outcomes include:

- a. Identification of top five challenges facing target groups.
- b. Ideation on local solutions from stakeholders which could either be new solutions, or improvements on already existing solutions. Also ensuring gender perspectives are integrated.
- c. Collaboration between target groups across economic sectors, religion, gender, and tribe even in controversial topics and resolving differences.
- d. Recognizing the need to take responsibility in developing sustainable solutions to local challenges in their vicinity.
- e. Commitment by stakeholders in driving forward the developed local solutions.
- f. Commitment by the government to work with the target groups in addressing the identified challenges.
- g. Commitment by microfinance institutions to work with MSME groups in resolving major challenges

related to accessing finance.

h. Commitment by Clean Tech Hub in providing technical support.

4. Gender empowerment training for women in Abia and Abuja across the value chain of the clean energy market.

Key outcomes include;

a. Knowledge on the negative economic, social, health, and environmental impacts of energy poverty on women.

b. Knowledge on the clean

energy market in Nigeria and opportunities for women.

c. Increased understanding of energy related issues and challenges from participants including the perception of energy and power as a male-focused industry.

d. Capacity building on empowerment opportunities in the clean energy sector through entrepreneurship, professional & career development, ideation, and advocacy.

e. Provision of mentorship opportunities in clean energy for prospective women clean energy professionals.

f. Provision of start-up capital and technical support from established clean energy enterprises for participants.

g. Provision of incubation support for gender focused clean technology ideas from Clean Tech Hub.



State Research

Anambra and Kaduna states were chosen for this project. Anambra was chosen due to its budding small-scale enterprise ecosystem and local industry presence, and Kaduna due to its budding agricultural sector and progress in adopting clean energy solutions. Summaries of the research are provided below with the full research publication available in a separate document.

3.1 Anambra

Anambra State is in the south-eastern part of Nigeria, occupying a land mass of 4,844 square kilometres, making it the second smallest state in the country. It has a population of 4,177,828 people (2006 census), making it the eighth most populated state in Nigeria and the second most densely populated state in Nigeria after Lagos State.

The capital city and seat of government of Anambra State is Awka, while other major cities are Nnewi, Onitsha and Ekwulobia. It has 21 local government areas.

Anambra State has the fourth largest economy in Nigeria after Lagos, Federal Capital Territory and Rivers States. The most thriving economic sectors in the state are distributive trade, agriculture, transport and services, real estate and construction, micro, small and medium industries, mining, financial services and other



Anambra State has the fourth largest economy in Nigeria after Lagos, Federal Capital Territory and Rivers States.

services such as health, education, law, etc.

Anambra State has a relatively large industrial sector compared to many other states, mostly private sector driven and spanning from agro-allied, automobile and manufacturing. This is situated mostly in the Nnewi industrial belt, which is the industrial city of the state and home to several indigenous industrial manufacturing companies, including Nigeria's first car manufacturing and motorcycle assembly plants.

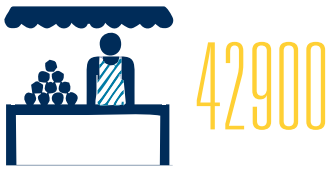
The state is also home to major market

clusters, such as the Onitsha market which is reputed to be the largest in West Africa, where, a variety of goods are sold ranging from motor cycle spare parts, building materials, shoes, food stuffs etc.; Ogidi Building Material Market where goods like tiles, kitchen fittings, finished and unfinished wood etc. can be purchased and the International Electronics Market Onitsha, Nkwo where goods from major electronics manufacturers such as Sony, Samsung, Nokia etc. are sold wholesale.

Anambra State has a thriving Micro, Small and Medium-scale Enterprises (MSME) sector with about 1,223,395 enterprises which employ 1,441,047 people, broken down by gender into 741,653 males and 699,395 females. The most lucrative Micro, Small and Medium Enterprises in the state are in trading, agri-business (crop cultivation, palm oil production, food processing and frozen foods), fishing business, ceramic business, motor spare parts, tool fabrication business, etc.



² <https://thenationalpilot.ng/from-onitsha-to-the-world/>



Only 42, 980 micro enterprises were aware of the existence of the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN).

However, only 42, 980 micro enterprises were aware of the existence of the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), the federal agency dedicated to enabling the creation and growth of SMEs in Nigeria, with none of the micro enterprises in the state benefiting from the agency.

Small and Medium Enterprises in the state encounter challenges which include: limited access to foreign exchange (forex) as a result of the recession , limited access to bank credit , and infrastructural issues such as poor road network and insecurity.

There have been a few local innovations in the state, particularly in the renewable energy sector: a solar powered tricycle by Arthur Energy Company; and Sky Resources Limited has installed a solar powered micro grid in the Nawgu Community of Anambra State.

3.2 Kaduna

Kaduna State is in the north-western part of Nigeria, with a land mass of 46,053 square kilometers and an estimated population of 6, 113, 503 people spread across 23 local government areas. It is one of the biggest trade centres in Nigeria and also a major transportation hub, providing its neighboring areas with agricultural supplies via its rail and road network. It has a political significance as the former administrative headquarters of the northern region during the colonial era. The capital city of the state is Kaduna with Zaria and Kafanchan being other major cities.

The largest economic sector in the state is agriculture, with the large-production of cotton, groundnut, shea nuts, pepper, ginger, tobacco, and sorghum; as well as the rearing of animals and poultry farming with ancillary industries such as tanneries for hides and skin. Agriculture is the single largest employer of labour in Kaduna State, contributing 79.6% of employment and 36.7% of its Gross Domestic Products (GDP) in 2015.

Kaduna State also has a relatively thriving manufacturing sector with over 80 commercial and manufacturing industries in both cosmopolitan and metropolitan areas. Major industries in the state include Federal Super Phosphate Fertilizer Company, Ideal Flour Mills Plc., Kaduna Furniture and Carpet Company Limited, the Defense Industries Cooperation Nigeria (DICON) and the Kaduna Refining and Petrochemicals Company, one of the

nation's four petroleum refineries. Other economic sectors that show a lot of promise in the state include mining as the state is blessed with minerals such as clay, serpentite, asbestos, amethyst, kyannite, columbite, nickel, gold, graphite and siltimanite graphite; and tourism with attractions such as the Nok Cultural Site, Matsirga Waterfalls, Saminaka Resort, Kajuru Castle and the Fifth Chukker Polo Resort.

Kaduna State has about 1,635,453 Micro, Small and Medium Enterprises (MSMEs) which employ about 2,367,460 Kaduna, made up of 2,071,929 males and 295,531 females. This is a huge growth from 2,882 MSMEs in 2013 employing 114, 132 people. The most lucrative Micro, Small and Medium Enterprises in the state are in educational consulting, commerce, cattle ranching and meat processing, etc.

However, only 217,092 micro enterprises were aware of the existence of the Small and Medium Enterprises Development Agency of



The main challenges being faced by MSMEs in Kaduna state include: lack of easy access to funding/credits...

Nigeria (SMEDAN) with 19,383 micro enterprises in the state benefiting from the agency.

The main challenges being faced by MSMEs in the state include: lack of easy access to funding/credits, bureaucratic bottlenecks and inefficiency in the administration of incentives and support facilities

provided by the government, lack of access to appropriate technology as well as near absence of research development, high dependence on imported raw materials, weak demand for products, unfair trade practices characterized by the dumping and importation of substandard goods for unscrupulous businessmen, lack of scientific and technological knowledge

and know-how, lack of appropriate and adequate managerial and entrepreneurial skills.

³. Alternative Clean Energy

³. Alternative Clean Energy : <https://www.pexels.com/photo/black-and-silver-solar-panels-159397/>

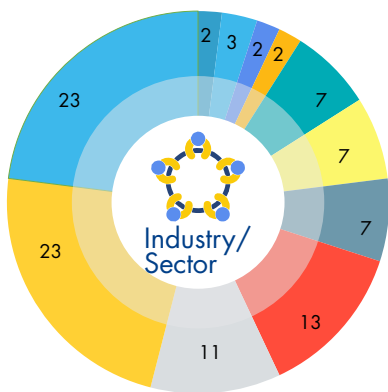


Stakeholder Engagement

Engagement with local stakeholders was carried out through surveys during physical and remote one-on-one interviews, and group meetings. Survey results are presented below.

Anambra State

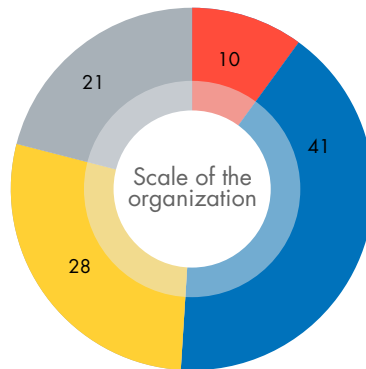
1. Industry/Sector



- Agriculture
- Cooperatives
- Information Tecgnology
- Electrical work
- Food Processing
- Health
- Footwear
- Renewable Energy
- Civil Society
- Textile
- Trading/Merchandise

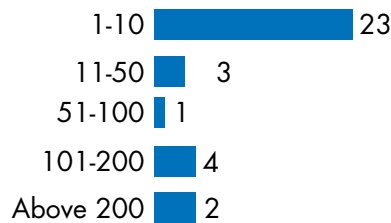
2. Scale of the organization

- (Micro – less than or equal to 10 employees/members
- Small – 11 to 50 employees/members
- Medium – 51 to 200 employees/members
- Large – above 200 employees)

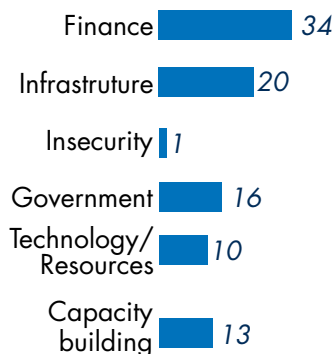


- Micro
- Small
- Medium
- Large

3. How many micro, small, medium and large-scale enterprises (MSMEs)/business groups do you work with or have under your association?



4. Top Challenges facing MSMEs/Entrepreneurs



Breakdown in hierarchy of responses, Finance

- Capital
- Business loans
- High interest rate
- Collateral requirements

Government

- Multiple and high taxation
- High cost of registering a business
- Unfavourable government policies

Infrastructure

- Power
- Bad roads
- Lack of water and issues of floods
- Storage facilities

Technology & Resources

- Small scale machinery and equipment
- Production and agricultural materials

Capacity Building

- Business skills
- Entrepreneurship
- Finance management
- Technical support & partnerships
- Skills development

Insecurity

- Burglary & Theft

5. What has been the impact of these challenges on your business?

- Inefficiency
- Inability to meet demand
- Lack of customer satisfaction
- Inability to meet targets

- Increased down time and reduced profit margins
- Inability to scale operations
- Inability to cover business costs
- Disempowerment and loss of dignity

6. Possible ways to address the challenges in 4&5?

- Availability of finance through micro-credit schemes with relaxed interest rates and collateral requirements, as well as grants
- Reliable power provision
- Tax holidays and subsidies for MSMEs
- Bespoke technology for productive activities
- Access roads
- MSME hubs for Human Capital Development

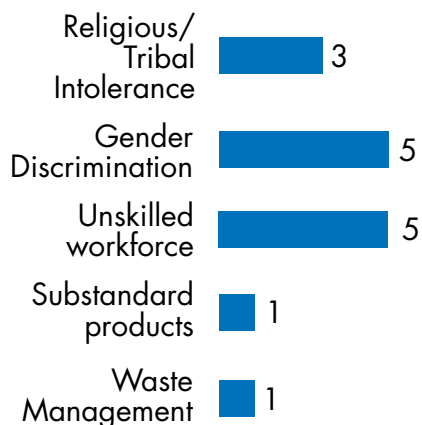
7. Identify four influencers needed to scale these solutions for maximum impact? (e.g. Government or private sector institutions)

- Government
- Commercial & Microfinance Institutions
- MSME cooperatives/ associations and Community Groups
- Capacity Development Organizations

8. List/suggest ways that your MSMEs/businesses/entrepreneurs can develop these local solutions.

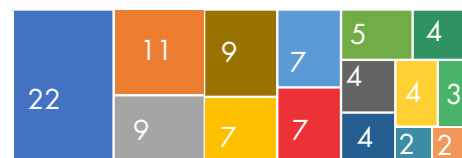
- Developing MSME capacity development programmes
- Multi-stakeholder collaboration across sectors
- Creation of an advocacy network
- Awareness creation on government policies applicable in each sector
- Incorporating Corporate Social Responsibility (CSR) projects into businesses
- Exploring alternative finance options such as crowdfunding and cooperative finance
- Exploring solar energy solutions for electricity provision
- Constructing make-shift access roads

9. Identify other issues you or your organizations face in your community, sector or area of work?



Kaduna State

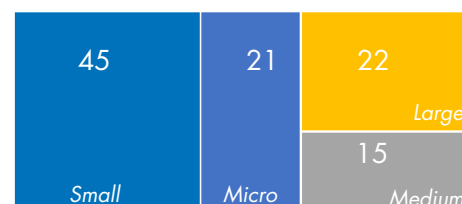
1. Industry/Sector



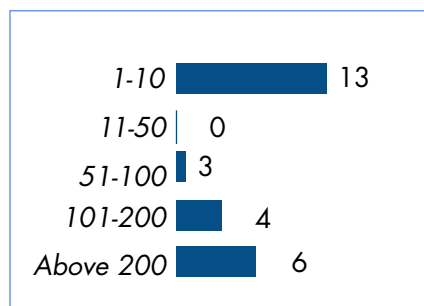
- Agriculture
- Product Retail/Sales
- Information Technology
- Health
- Tailoring/fashion/cosmetology
- Consultancy
- Food/Catering Services
- Small Scale manufacturing
- Women empowerment
- Civil society/social justice
- Renewable Energy
- Cosntruction/Electrical Installations
- Government
- FinanceTechnology/Media

2. Scale of the organization

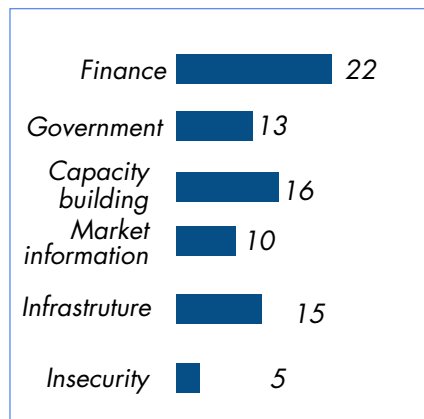
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4. Top Challenges facing MSMEs/Entrepreneurs



Breakdown in hierarchy of responses,

Finance

- Capital
- Business loans
 - High interest rate
 - Collateral requirements

Government

- Lack of Government Support
- Unfavourable Policies
- Corruption

- Lack of transparency

Infrastructure

- Power
- Difficulty in obtaining land
- Bad roads

Technology & Resources

- Fake and substandard materials
- Difficulty in obtaining machinery and equipment
- Difficulty in obtaining farm input especially seedlings and quality fertilizers

Capacity Building

- Entrepreneurship
- Technical Know-how
- Management Skills
- Finance Management
- Recognizing investment opportunities

Insecurity

- Burglary & Theft

5. What has been the impact of these challenges on your business?

- Slow growth and business stagnation
- Poor patronage
- Reduced income
- Business failure
- Difficulty accessing new markets
- Increasingly lower output
- Limited access to information
- Delays in project completion/results
- Inability to make informed decisions
- Overspending
- Inability to meet targets

- Discouragement for new entrants

6. Possible ways to address the challenges in 4&5?

- Capacity building
- Government support
- Crowdfunding/Grants/Low interest loans/Increased lending options
- Promoting local materials/expertise/labour
- Support from developmental organizations
- Technical partnerships
- Local security networks
- Clean alternative power solutions
- Community and multi-sector stakeholder collaboration
- Free internet access
- Provision of fertilizers/Weed control

7. Identify four influencers needed to scale these solutions for maximum impact? (e.g. Government or private sector institutions)

- Financial Institutions
- Civil Society and Development Organizations
- Government and Community Leaders
- Private Sector and Trade Unions

8. List/suggest ways that your MSMEs/businesses/entrepreneurs can develop these local solutions

- Awareness and capacity building through sectorial groups
- Multi-stakeholder Collaboration
- Cooperative finance
- Associations/Cooperatives/Community Groups

- Training Workshops
- Exploring cheaper solar Power
- Dialogue with Government

9. Identify any other issues you or your organizations face in your community, sector or area of work?

Socio-cultural & Gender challenges	5
Clean water	5
Healthcare	3
Unemployment	2
Waste Management & Sanitation	2
Community Leadership style	1
Lack of cooperatives	1
Drug Abuse	1



Local Solutions Lab

On the 17th October 2018 and 1st November 2018, local stakeholders from target groups in Anambra and Kaduna states respectively assembled for the Local Solutions Labs to brainstorm and map out solutions to tackle priority local challenges. After introductions of the hub and project sponsor, and description of the project, a review of the identified challenges from the survey responses was carried out followed with prioritization the top five challenges.

Top identified challenges for

Anambra were,

1. Infrastructure
2. Insecurity
3. Finance
4. Human capital and manpower development
5. Multiple Taxation & Unfavourable Government Policies

Top identified challenges for Kaduna were:

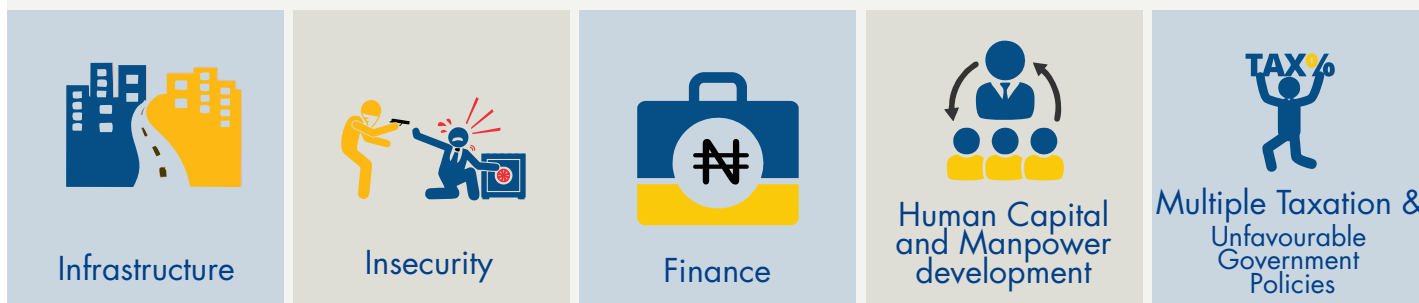
1. Finance
2. Market Information/Awareness
3. Capacity Building
4. Power
5. Insecurity

Participants then broke out into five

focus groups each addressing each identified challenge and brainstorming possible local solutions using the following format, Issue identification

- Specific impacts
- Local Solutions
- Key Stakeholders
- Champions
- Next Steps/Timeline

Top 5 identified challenges in Anambra State



Top 5 identified challenges in Kaduna State



Focus Groups

Anambra State

Issue identification	Specific impacts	Local Solutions	Key Stakeholders	Champions	Next Steps/ Timeline
Focus Group 1: Infrastructure participants insisted that the four listed issues be discussed under infrastructure rather than picking a select issue					
<p>Power</p> <ul style="list-style-type: none"> ○ Non-reliability and non-availability ○ High cost of running generators <p>Water</p> <ul style="list-style-type: none"> ○ Lack of access to clean water ○ Irrigation challenges ○ High cost of borehole solutions <p>Access roads</p> <ul style="list-style-type: none"> ○ Bad road network ○ No road network in some areas ○ Poor drainage <p>Technology & Resources</p> <ul style="list-style-type: none"> ○ Lack of proper mechanization tools ○ Foreign technologies requiring high maintenance ○ High capital cost of machinery 	<p>Power</p> <ul style="list-style-type: none"> ○ Inability to meet business targets ○ Use of manual processes that do not require electricity ○ Production inefficiency and low productivity ○ Reduced profitability ○ Discomfort <p>Water</p> <ul style="list-style-type: none"> ○ Reduced focus on water demanding activities ○ Reduced harvest yield and profitability ○ Sanitation issues <p>Access roads</p> <ul style="list-style-type: none"> ○ Difficulty transporting goods especially from production areas to market ○ Inaccessibility by customers ○ High cost of vehicle repair and maintenance 	<p>Power</p> <ul style="list-style-type: none"> ○ Affordable solar energy solutions ○ Communal generator use <p>Water</p> <ul style="list-style-type: none"> ○ Locally manufactured irrigation technology ○ Low cost water drilling technology <p>Access roads</p> <ul style="list-style-type: none"> ○ Continuous appeal to government through labour unions <p>Technology & Resources</p> <ul style="list-style-type: none"> ○ Locally developed mechanized tools for farms with common and easily accessible spare parts ○ Collaboration with tech hubs and skill centers where machines can be developed, and rented 	<p>Power</p> <ul style="list-style-type: none"> ○ Anambra State Government ○ Solar companies ○ Generator companies ○ Enugu Distribution Company ○ MSME Associations <p>Water</p> <ul style="list-style-type: none"> ○ Anambra State Government ○ State Water Board ○ Private Water Drilling Companies including solar companies ○ MSME Associations <p>Access roads</p> <ul style="list-style-type: none"> ○ Anambra State Government ○ State Labour Unions ○ Civil Society and pressure Groups ○ MSME Associations 	<ul style="list-style-type: none"> ○ MSME Associations ○ Civil Society ○ Tech Hubs 	<p>Power</p> <ul style="list-style-type: none"> ○ Reach out to identified key stakeholders <p>Water</p> <ul style="list-style-type: none"> ○ Reach out to identified key stakeholders ○ Develop prototype irrigation technology <p>Access Roads</p> <ul style="list-style-type: none"> ○ Reach out to identified key stakeholders <p>Technology & Resources</p> <ul style="list-style-type: none"> ○ Reach out to identified key stakeholders ○ Develop prototype technologies

<ul style="list-style-type: none"> o Difficulty assessing spare parts, and raw materials o Lack of experienced manpower o Resource unavailability – seeds for agriculture o Storage facilities 	<ul style="list-style-type: none"> o Loss of productive hours <p>Technology & Resources</p> <ul style="list-style-type: none"> o Reduced profitability and productivity o Over dependence on manual labour o Stress o Use of sub-standard available resources 	<p>for use through cooperatives such as the Nnewi Incubation Center</p> <ul style="list-style-type: none"> o Development, promotion, and awareness of standards and quality products 	<p>Technology & Resources</p> <ul style="list-style-type: none"> o Tech Hubs and Skills Centres o Polytechnics and Institutions of Technology o Standards Organization of Nigeria (SON) o MSME Associations 		
Focus Group 2: Insecurity					
<ul style="list-style-type: none"> o Terrorist farm herders o Theft o Poorly equipped security agencies and local vigilante groups o Cult activities o Fraudsters 	<ul style="list-style-type: none"> o Loss of goods, crops, and products o Financial loss o Inability to meet targets o Threat to life o Reduction in productive hours as most businesses cannot operate at night o Additional expense to deploy security technologies and pay for local security outfits 	<ul style="list-style-type: none"> o Tasking local rulers with handling the herdsmen in the state o Implementation of policies by the government to prevent the herdsmen from attacking the farmlands/pastoralists. o Adoption of local security monitoring systems for theft o Fully equipping state security agencies 	<ul style="list-style-type: none"> o Anambra State Government o Police o Local Vigilante groups o Security Technology Companies o Community leaders and Youth Groups o Trade Unions and MSME Associations 	<ul style="list-style-type: none"> o Anambra Small Business Agency (ANSBA) o MSME Associations 	<ul style="list-style-type: none"> o Reach out to identified key stakeholders and proffer / develop solutions
Focus Group 3: Finance					
<ul style="list-style-type: none"> o Lack of access to micro capital finance o High interest rates of loans from the finance 		<ul style="list-style-type: none"> o Cooperative finance o Preferential interest rates for local MSMEs o Favourable lending 	<ul style="list-style-type: none"> o State Ministry of Finance o Anambra Small Business Agency 	<ul style="list-style-type: none"> o MSME Associations o Anambra Small Business 	<ul style="list-style-type: none"> o Reach out to identified key stakeholders and develop

<ul style="list-style-type: none"> institutions o Rigid collateral requirements o Lack of requisite business knowledge, expertise and financial management skills o Harsh business environment 		<ul style="list-style-type: none"> conditions for MSMEs o Tax holidays, moratorium o Effective monitoring of government policies designed to increase funding to such MSMEs o Increase in awareness or information of other funding opportunities o Capacity building b entrepreneurs 	<ul style="list-style-type: none"> (ANSBA) o Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) o Microfinance banks o Cooperatives o Commercial banks o Nigeria Incentive Based Risk Sharing System for Agricultural Lending (NIRSAI) o Federal inland Revenue Service (FIRS) 	<ul style="list-style-type: none"> Agency (ANSBA) 	<ul style="list-style-type: none"> bespoke finance solutions
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Focus Group 4: Human Capital and Manpower Development

<ul style="list-style-type: none"> o Difficulty finding skilled staff o Inadequate technical support from MDAs o Lack of skills in mechanized agriculture and technical activities o Poor business development skills o Too much focus on theoretical training and less on hands on learning o Lack of training resources 	<ul style="list-style-type: none"> o Under-skilled entrepreneurs o Stagnant business growth o Inability to keep up with new trends and development o Poor output and low productivity o Loss of revenue due to increased downturn o Poor staff quality and difficulty in staff retention 	<ul style="list-style-type: none"> o Training sessions across MSME sectors o Link to development and training organizations for support and partnership o Developing a mechanism for proper dissemination of information among stakeholders and organizations on capacity building o Internship opportunities for the young workforce 	<ul style="list-style-type: none"> o Anambra State Government o Labour Unions o MSME Associations o Finance institutions o Skills Development Bodies o Nigeria Incentive Based Risk Sharing System for Agricultural Lending (NIRSAI) o Small and Medium Enterprise Development Agency of Nigeria 	<ul style="list-style-type: none"> o MSME Associations o Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) 	<ul style="list-style-type: none"> o Mapping out of training needs by MSME sectors o Contact identified key stakeholders who can provide such training and also partner with them o Develop means of training information dissemination
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			<ul style="list-style-type: none"> o (SMEDAN) o United Nations Industrial Development Organization (UNIDO) o National Power Training Institute of Nigeria (NAPTIN) o Clean Tech Hub o Heinrich Boell Foundation o Donor & Development organizations o Private agencies such as Coscharis 		among MSMEs
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Focus Group 5: Multiple Taxation & Unfavourable Government Policies

<ul style="list-style-type: none"> o Multiple taxation by several government agencies o High cost of business registration o Harsh and inconsistent government business related policies especially for MSMEs o Contracting of tax responsibilities to non-professionals 	<ul style="list-style-type: none"> o Increased price of goods as tax costs are passed down to the customer o Reduced profit o Reduced capacity for business expansion o Promotes unemployment 	<ul style="list-style-type: none"> o Review of multiple taxation for MSMEs in the state, and development of a relaxed consolidate tax regime for MSMEs o Reduce the cost of business registration o Training and retraining of tax/revenue collectors o Training of MSMEs on taxes, and development of Simplified Guide on Taxes for MSES in the 	<ul style="list-style-type: none"> o Government institutions such as the state Ministry of Finance o State House of Assembly o Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) o MSME Associations o Federal Inland Revenue Service (FIRS) o Development and 	<ul style="list-style-type: none"> o Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) o MSME Associations 	<ul style="list-style-type: none"> o Map out taxes paid by each MSME sector o Engage with identified stakeholders on a favourable tax regime for MSMEs under a collaborative body such as SMEDAN
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		<p>state</p> <ul style="list-style-type: none"> o Grassroots/community awareness and sensitization of taxation processes o High need for a co creation platform, that is, private and government involvement in deciding the amount of taxation. Anambra has joined the Open Government Partnership that is currently effective in the state. 	<p>Donor agencies</p> <ul style="list-style-type: none"> o Civil Society Organizations (CSOs) o Media o Labour and trade unions 		<ul style="list-style-type: none"> o Develop a simplified guide on tax for MSMEs in the state o Develop an action plan for policy advocacy and sensitization for the legislative bodies o Lobbying and consultation with the stakeholders
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Issue identification	Specific impacts	Local Solutions	Key Stakeholders	Champions	Next Steps/ Timeline
Focus Group 1: Finance					
<ul style="list-style-type: none"> o High interest rates for MSME loans o Lack of collateral by MSMEs o Non-recognition of the informal sector 	<ul style="list-style-type: none"> o Prevents achievement of business goals o Prevents growth and expansion 	<ul style="list-style-type: none"> o Crowdfunding o Cooperative finance o Lower interest rates driven through partnership with finance institutions or government regulation o Donor Agencies o Venture capital o Informal network finance 	<ul style="list-style-type: none"> o Finance institutions o MSMEs o Financial experts/advisers o Government o Cooperatives/Associations/Networks o Kaduna Investment Promotion Agency (KADIPA) 	<ul style="list-style-type: none"> o MSME Cooperatives o Trade unions o Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) 	<ul style="list-style-type: none"> o Meetings with identified stakeholders o Awareness through cooperatives/networks/association
Focus Group 2: Market Information/Awareness					
<ul style="list-style-type: none"> o No marketing education o Limited marketing skill o General negative public perception of marketing o Lack of target-driven marketing strategies o Lack of market information and data 	<ul style="list-style-type: none"> o Inability to reach target market o Reduced profitability o Sale of goods below cost prices at intervals to prevent waste, especially for agro products o Exploitation by 	<ul style="list-style-type: none"> o Capacity building on effective marketing skills o Simplified guide on marketing for MSMEs across various sectors o Social networking o Adopting the 4Ps of marketing: Price, product, promotion and 	<ul style="list-style-type: none"> o Marketing Experts – Digital and non-digital o Media o Special Adviser to the Governor on Job Creation & Investments o IBM⁴ 	<ul style="list-style-type: none"> o Hafeez Bayero o Felix Oloruntoba - Kaduna State Chamber of Commerce & Industry o Start-Up Kaduna 	<ul style="list-style-type: none"> o Stakeholders engagement – Categorized by private sector, government & Business Management organizations o Organizing

⁴ IBM and Kaduna State government in 2018 signed an MoU to train one million Kaduna state citizens on digital skills. Available from: <https://www.pmnewsnigeria.com/2018/10/05/ibm-kaduna-govt-to-train-1m-residents-on-digital-skills/>

	<ul style="list-style-type: none"> middlemen Progressively reduced sales Inability to expand 	place	<ul style="list-style-type: none"> Advertising Practitioners Council of Nigeria (APCON) Kaduna Investment Promotion Agency (KADIPA) Organized private sector/Kaduna Investment Promotion Agency NGOS Kaduna State Chamber of Commerce & Industry Kaduna State University & Entrepreneurship Centre 	<ul style="list-style-type: none"> Samaila Goje Startup Grind – Lesley Dong Kaduna Business School – Prof Dahiru Sani 	<ul style="list-style-type: none"> facilitation workshops for SMES with some champions Mentoring
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Focus Group 3:Capacity Building

<ul style="list-style-type: none"> Lack of business, production, entrepreneurial, ad technical skills Inadequate manpower Technology evolution 	<ul style="list-style-type: none"> Difficulty getting qualified staff Inability to scale business operations Loss of profitability 	<ul style="list-style-type: none"> Training Workshops Mentorship Learning days in associations where experiences, knowledge and information are shared 	<ul style="list-style-type: none"> Start-Up Kaduna Kaduna Investment Promotion Agency (KADIPA) Kaduna State University & Entrepreneurship Centre MSME Associations 	<ul style="list-style-type: none"> Start-Up Kaduna MSME Cooperatives Trade unions Small and Medium Enterprise Development Agency of Nigeria 	<ul style="list-style-type: none"> Collaboration with training centers
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			<ul style="list-style-type: none"> o Government o Trade unions 	(SMEDAN) <ul style="list-style-type: none"> o Tech Hubs 	
Focus Group 4: Power					
<ul style="list-style-type: none"> o Lack of power for as basic as lighting to as much as powering equipment o Cost of alternative power generation o Liability and quality of electricity o Fluctuation in charges with emphasis on transparency/ flat rate o Power instability o Maintenance theft o Estimated Billing o Inadequate clarity or awareness on policies 	<ul style="list-style-type: none"> o Reduced productivity and profitability o Reduced use of power demanding tools and adoption of cruder methods which negatively affects business o Affects storage for harvest 	<ul style="list-style-type: none"> o Use of solar energy as an alternative o Using more efficient generators o Embedded power & captive power 	<ul style="list-style-type: none"> o Government o KADECO (Kaduna Electricity distribution company) o Renewable energy companies o Generator companies o Financial institutions o Citizens o Donor organizations dealing with power 	<ul style="list-style-type: none"> o Respective MSME Associations 	<ul style="list-style-type: none"> o Letter to Government, KADECO, Renewable energy association of Nigeria
Focus Group 5: Insecurity					
<ul style="list-style-type: none"> o Manipulation and use of vulnerable individuals by people in authority for selfish and usually violent agendas o Theft and Robbery o Threat to life o Intimidation 	<ul style="list-style-type: none"> o Customers worried about their safety leading to reduced sales o Loss of revenue o Business stagnation o Close up of business o Relocation costs and loss of market 	<ul style="list-style-type: none"> o Formation and equipping of local vigilantes o Need for a security dissemination system 	<ul style="list-style-type: none"> o Citizenry o Government o Security agencies o Community leaders o Religious leaders o Media 	<ul style="list-style-type: none"> o MSME Associations and Trade Unions o Media 	<ul style="list-style-type: none"> o Reach out to identified key stakeholders

			<ul style="list-style-type: none">o NGOs and Civil Society groupso Local Vigilanteso MSME Associations and Trade Unions		
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Gender Empowerment through Clean Energy Adoption

This component of the project focused on empowering women by gender mainstreaming in the emerging renewable eco-system. The workshops held in Abia and Abuja looked into the nexus between energy access and gender issues; access to market and opportunities in the renewable energy sector for women; productive use of clean energy; and developing gender human capital across the clean energy value chain.

6.1 Abia

Breakdown of the workshop,

- o Decentralized Renewable Energy (DRE) Training by CTH
- o Programmes of the Clean Tech Hub and Heinrich Boell Foundation.
- o The Energy Access and Gender Nexus - Why issues of energy access impacts women more.
- o The clean energy market globally, regionally and locally.
- o Empowerment opportunities for women across the DRE value chain – entrepreneurship, career development (legal, accounting, business development, etc), policy making, research & consulting, advocacy, etc.
- o Why women must play a more active role in participating in the energy access conundrum.

- o DRE Business and Career Development Training by Solar Sister and Asteven Group
- o Starting a women-driven

clean energy business

- o Entrepreneurial journey stories.
- o Working up the clean energy professional ladder.
- o
- o Finance and support for women clean energy entrepreneurs.

- State Government support and commitment with talks from the Honourable Commissioner for Special Duties, Honourable Commissioner for Women Affairs & Social Development, and a former Honourable Commissioner for Women Affairs & Social Development. This was followed by an interactive session between participants and the state government representatives.

o Breakout Sessions

- Four focus groups brainstorming on ways of,
- o Increasing women participation in the renewable energy sector
 - o Increasing the number women entrepreneurs in renewable energy in the state
 - o Women driven community engagement approaches to driving the adoption of renewable energy in rural communities



Breakout Session Recommendations /Lessons Summary

<p>Group 1: Increasing women participation in the renewable energy sector</p>	<p>Through,</p> <ul style="list-style-type: none"> • Women focused awareness campaigns on clean energy and the responsibility of women in uplifting their households and communities through clean energy • Capacitybuilding along the various professional career fields present in the clean energy sector • Professional mentorship opportunities for young enterprising women • Publicity on success stories of women professionals in the sector
<p>Group 2: Increasing the number of women entrepreneurs in renewable energy in the state</p>	<p>Through,</p> <ul style="list-style-type: none"> • Formation of women clean energy cooperatives and an information dissemination system • Support from solar companies, development/donor organizations, finance institutions, and other relevant organizations • Grassroots advocacy
<p>Group 3: Women driven community engagement approaches to driving the adoption of renewable energy in rural communities</p>	<p>Through,</p> <ul style="list-style-type: none"> • Leveraging local influencers in communities such as community women leaders, village chiefs, faith-based bodies, civil society organizations, and youth groups • Leveraging rural based women network especially in the market • Understanding local methods of awareness creation in each community and adapting awareness campaigns to blend with the local context as most locals are illiterate • Use of visuals during awareness campaigns • Increased participation and contribution by women during community meetings
<p>Group 4: Career development for young girls in the renewable energy sector irrespective of backgrounds</p>	<p>Through,</p> <ul style="list-style-type: none"> • Career days on renewable energy across girls secondary schools and tertiary institutions • Professional mentorship along career paths in the renewable energy sector by successful women professionals in the industry for young women looking to develop careers in the sector • Increased technical training for women in the sector than focus on only non-technical training • Availability and accessibility to information and opportunities in the sector for women



Focus Groups

Abuja

Breakdown of the workshop

- Decentralized Renewable Energy (DRE) Training by CTH
- Programmes of the Clean Tech Hub and Heinrich Boell Foundation.
- The Energy Access and Gender Nexus - Why issues of energy access impacts women more.
- The clean energy market globally, regionally and locally.
- Empowerment opportunities for women across the DRE value chain – entrepreneurship, career development (legal, accounting, business development, etc), policy making, research & consulting, advocacy, etc.
- Why women must play a more active role in participating in the energy access conundrum.

DRE Business and Career Development Training by Creeds Energy, Solar Sister, Roshan Global, and Asteven Group

- o Starting a women-driven clean energy business
- o Entrepreneurial journey stories.
- o Working up the clean energy professional ladder.
- o Finance and support for women clean energy entrepreneurs.

Presentation by High Tech Center for Nigerian Women and Youths
The President/CEO and National Coordinator of the Center, Dr Wunmi Hassan spoke on the mission and activities of the center which is primarily focused on achieving ICT

literacy for Nigerian women and youth, and the use of ICT skills for wealth creation. She spoke about the link between ICT and renewable energy, highlighting ICT opportunities in the sector - from digital media, to software development, data analytics, business development and administration, and several other areas. She discussed the center's ongoing training for women on the use of social media to promote their businesses, and how this can be very useful for women clean energy entrepreneurs. She mentioned that the center has trained over 2,000 women so far, and highlighted how the training has driven women empowerment in the budding ICT ecosystem.

Key outcomes from her presentation include;

- The relevance of ICT for women
- The link between ICT and renewable energy
- A free training offer for select number of participants at the workshop in the center's ICT camp in September
- Partnership with Clean Tech Hub to develop ICT-RE gender training courses

Breakout Sessions

Four brainstorming focus groups with each discussing four key areas,
· Identifying key takeaways learnt from the workshop
· Support for women driven clean energy businesses and women empowerment initiatives
· Support for prospective

women clean energy entrepreneurs from existing women drive clean energy businesses

· Other issues faced by women besides energy poverty



Breakout Session Recommendations/Lessons - Summary

Focus 1:
Identifying key takeaways learnt from the workshop

- Renewable energy proffers solutions to climate change with key benefits across sectors especially agriculture
- Reducing energy poverty equals increasing energy access; and the need to ensure that energy supply is affordable.
- The need for increased awareness and sensitization on the renewable energy sector.
- It does not matter what your professional background is, one can do a lot in the renewable energy sector.
- Impressed by the work of the renewable energy industry in reaching out to rural dwellers with clean energy solutions
- Learnt about clean cook stoves for the first time
- Discovered the vital role of women in renewable energy
- Availability of information on the sector online
- Business models that make solar solutions affordable
- Women can be renewable energy entrepreneurs
- Renewable energy empowers women
- With little income one can start a renewable energy business
- There is no work a woman cannot do
- We can help our environment by helping ourselves
- Renewable energy works and is cost effective
- The importance of energy efficiency

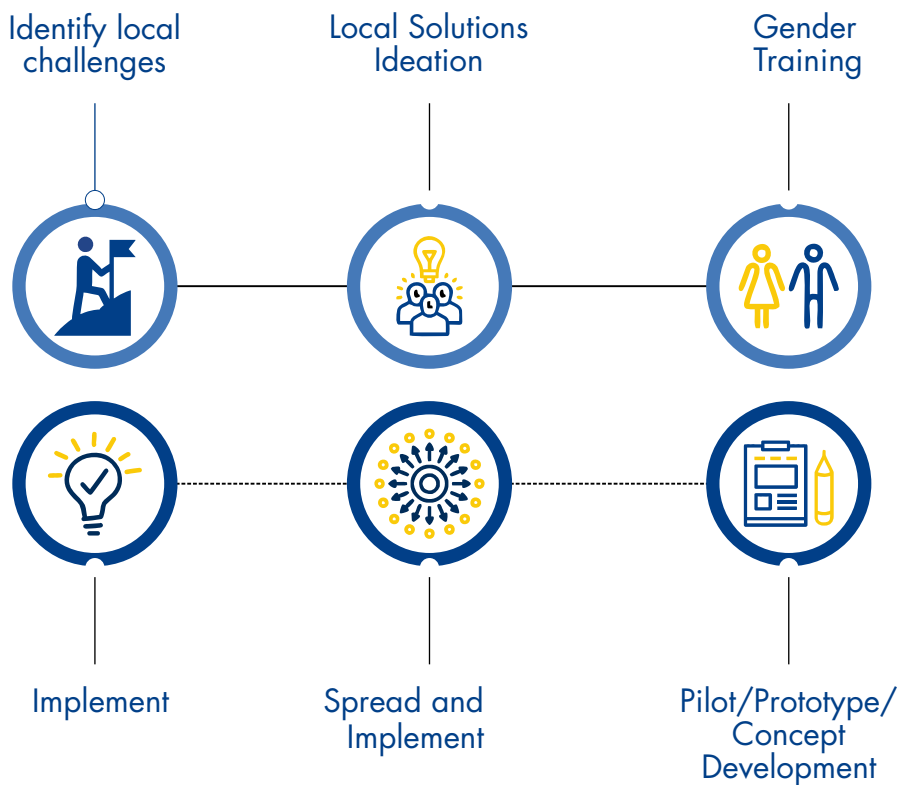
Focus 2:
Support for women driven clean energy businesses and women empowerment initiatives

- Increased awareness of the various companies and their solutions through advocacy
- Community entry into rural communities where we have access in the country
- Organize educative/sensitization programmes in new market areas
- Through internships
- Connect the business of the women owned solar companies with women associations
- By becoming distributors in local areas
- By establishing and handling social media campaigns for the businesses
- Getting more women to attend subsequent trainings

<p>Focus 3: Support for prospective women clean energy entrepreneurs from existing women drive clean energy businesses</p>	<ul style="list-style-type: none"> • Mentorship programmes • Trainings • Experience sharing • Product distributor opportunities • Creation of an NGO that will provide starter kits for renewable energy business start ups
<p>Focus 4: Other issues faced by women besides energy poverty</p>	<ul style="list-style-type: none"> • Agricultural related issues – getting land, getting seedlings, getting finance, ect • Waste management • Child marriage • Lack of education • Family planning awareness • Sanitary provisions (sanitary towels and menstrual hygiene supplies) • Not enough empowerment opportunities for women • Societal limitation on women • The ideology that women are supposed to just be house wives and overly dependent of on their husbands • Limited funds available for women to start a businesses • Low Self esteem




Next Steps



■ Implemented
■ Pending

- Assessment of all potential solutions from the local solutions lab and next steps from the gender mainstreaming workshop by both partners (Clean Technology Hub and the Heinrich Boell Foundation) would require such solutions, customizing solution to fit local context in various areas
- Mutual identification and selection of five potential solutions both partners would like to move forward with
- Implement next phase – developing a pilot/porotype/concept of the potential solution, implementing it and spreading to other areas that
 - Monitoring and Evaluation

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