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FACILITATING INTEGRATED POPULATION HEALTH ENVIRONMENT IN FIVE COMMUNITIES IN THE SHAMA DISTRICT AND TWO COMMUNITIES IN THE AHANTA WEST DISTRICT

ACHIEVEMENTS AND LESSONS LEARNED

Hɛn Mpoano

THE UNIVERSITY OF RHODE ISLAND GRADUATE SCHOOL OF OCEANOGRAPHY

COASTAL RESOURCES CENTER

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Cover Photos: Trained Peer Educators of CEWEFIA

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List of Acronyms

BALANCED	Building Actors and Leaders for Advancing Community Excellence in Development
BCS	Behaviour Change and Support
CBD	Community Based Distributor
CEWEFIA	Central and Western Fishmongers Improvement Association
CHPS	Community-based Health Planning Services
CRC	Coastal Resources Center
DHD	District Health Directorate
DSW	Department of Social Welfare
EH	Environmental Health
EPA	Environmental Protection Agency
FBO	Faith-Based Organization
FoN	Friends of the Nation
FP	Family Planning
GHS	Ghana Health Service
HKN	Health Keepers Networks
IEC	Information Education and Communication
MCH	Maternal and Child Health
MoFA	Ministry of Food and Agriculture
PE	Peer Educator
PHE	Population Health Environment
PPAG	Planned Parenthood Association of Ghana
SRH	Sexual Reproductive Health
YPEs	Youth Peer Educators

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1.0 INTRODUCTION

1.1 Purpose and Scope of the Report

This report outlines the accomplishments and lessons learned through the implementation of integrated Population, Health and Environment (PHE) initiatives by the Central and Western Fishmongers Improvement Association (CEWEFIA) in seven coastal communities in Ghana's Western Region. The report elaborates on the socio-environmental context in the communities before the piloted interventions and the relevance of PHE as an approach for addressing the issues faced by the target communities and associated ecosystems. The way forward for improving PHE programmes in such communities is suggested to inform similar actions in other parts of the country and elsewhere in the world.

1.2 Background of CEWEFIA and PHE Interventions

Central and Western Fishmongers Improvement Association (CEWEFIA) is a Non-Governmental Organization (NGO) operating in Central and Western Region of Ghana. Its main concern is to help alleviate the hardships of fisherwomen and small scale women farmers that render them poor.

The genesis of the formation of the Association in March 1990 was after the displacement of *54* fishmongers whose mud ovens were destroyed in the process of rehabilitating the Ghana Railway Cooperation's station in Sekondi in the Western Region of Ghana. The fishmongers were thus mobilized by Mrs. Victoria Churchill Koomson, then a teacher by profession, as one body to look for a suitable place to work.

Efforts were made to acquire a new plot of land to settle the women. Through the efforts of Mrs. Koomson, the Sekondi women were also able to get assistance in the form of a loan to improve upon their fish processing business. As a result of her hard working activities with the Sekondi women, the fishmongers in the Central Region (Moree, Ekon, Ayisa, and Bantoma) also invited her to extend her support to them and both groups worked together and exchanged ideas and experiences, hence, the name Central and Western Fishmongers Improvement Association of Ghana.

CEWEFIA has been concerned with the vulnerability of women in both fishing and farming communities in its catchment areas in the Central and Western Regions of Ghana. The organization is also concerned that the potential of women to improve society has largely been untapped. CEWEFIA's dream has been how to draw the attention of Government, Donors and other benevolent partners to help address the problems of facing women.

CEWEFIA's role in the PHE project centered on awareness creation targeting issues such as:

- Population growth
- Ignorance and inadequate information on Family Planning (Birth Control) practices and services
- Linkages between Population-Health-Environment
- Unhealthy and unsustainable use of environment and causes of depletion of natural resources and
- Inadequate access to health services

1.3 Funding and Technical Assistance

Funding for the project came from USAID through the Hen Mpoano Initiative. CEWEFIA also received technical assistance during project implementation from the Building Actors for Livelihoods and Advancing Communities Excellence in Development (BALANCED) project in December 2011 and May 2012.

1.4 Objectives of the Intervention

Main objectives of the Hen Mpoano PHE intervention are as follows:

- The Population, Health and Environment (PHE) situation in the 7 communities in Shama and Ahanta West Districts is ascertained.
- Awareness on PHE issues and their linkages in 5 project communities is created
- Access to information and knowledge on Maternal and Child Health (MCH) and Nutrition (FP, SRH, Antenatal and Postnatal Care, exclusive breastfeeding, balanced diets, etc.) in 5 project communities increased.
- Awareness created on unhealthy environment and its causes and effects (depletion of resources).
- Communities are supported to adopt Moringa as food supplement to enhance nutrition.

1.5 Context of PHE in Shama and Ahanta West Districts

The integrated Population-Health-Environment (PHE) approach to development recognizes the interconnectedness between people and their environment and supports cross-sectoral collaboration and coordination. The underlying philosophy of PHE integrations is to achieve a range of development goals, from poverty reduction to food security to gender equity.

On this basis, the Hen Mpoano Initiative identified the coastal fishing communities in the Western Region of Ghana as areas in need of Population, Health and Environment (PHE) interventions. Subsequently, two communities in the Ahanta West District **(Upper Dixcove and Lower Dixcove)** and five communities in the Shama District **(Shama Apo, Shama Bentsir, Shama Anlo Beach, Aboadze and Abuesi)** were targeted.

The surrounding environments in these communities are heavily impacted by a growing population and the lifestyle and choices of the people. This has implications for sustainable management of the natural resources upon which these communities depend. Again, changes in environmental conditions in turn affected human health and well-being in these communities.

The population increase in these identified areas (seven communities) puts greater pressure on natural resources and has contributed to the degradation of the soils, water bodies and forests (mangroves) which has put constraints on food production in the districts and reduced acceptable health and economic standards thereby heightening poverty levels among the people in these areas.

Also malnutrition is widespread; for example:

- A great number of children less than five years of age have stunted growth, wasted and underweight.

- The causes of malnutrition in the communities are many and complex; for instance, it is common to see children in these communities with red hair, big stomach and rashy skin which are symptoms of Kwashiorkor. The immediate causes of malnutrition in pregnancy are inadequate food and eating of unbalanced diets especially on the part of the teenage pregnant mothers. At Aboadze, in one of the households visited, there was this pregnant teenager who was found eating *gari* (a starchy, powdery food) with sugar soaked in water because her mother could not afford a nutritious meal for her (the pregnant woman).
- During childbirth and the first two years of the life of the child, the immediate causes are inappropriate breastfeeding and supplementary feeding practices coupled with high rates of infections.
- Exclusive breastfeeding in the first 6 months of the child's life is not well practised since most nursing mothers – sometimes due to pressure from relatives/elderly women in society - introduce water and complementary foods to their babies before they are six months old.
- Some of the infants are given supplementary foods at early ages; foods that are often of poor nutritional value, mostly inadequate in terms of energy, protein and micronutrients such as iron, zinc, iodine & vitamin A.
- The frequency of feeding is usually low, while the quantities given are less than that required for the ages of the children.

CEWEFIA has been in the communities to shift the emphases from curative health services to preventive healthcare.

CEWEFIA started its pilot project on Population-Health-Environment (PHE) in four coastal fishing communities in the Shama District (Shama Apo, Shama Bentsir, Aboadze and Abuesi) in collaboration with technical support from Friends of the Nation (FoN) under the Hen Mpoano Initiative. In the Second Phase, the project was then expanded to include Anlo Beach and two additional communities in the Ahanta west District in the Third Phase but this time with direct assistance from Coastal Resources Center (CRC)-Ghana.

CEWEFIA started by forging a strong relationship with Ghana Health Service (GHS) during the planning and implementation stages of the project. Other partners included the Environmental Health Departments, Community Development offices, the Economic Planning Units and other relevant bodies in the district assemblies, Environmental Protection Agency, the Department of Social Welfare, the Ministry of Food and Agriculture (MoFA), the Traditional Authorities and all other opinion leaders including the Market Queens, the Assembly Members, the Zoomlion Waste Management Ltd, Eco-brigade/ (ZOIL), and the Faith Based Organizations (FBOs) in all the two Districts. The activities of CEWEFIA in Shama started with a Rapid Rural Appraisal (RRA) exercise as a research tool directly involving the people in the communities to ascertain the PHE situation in the coastal communities before full implementation of the Pilot PHE project. The research collected data, analyzed them, draft report written, meeting organized for inputs into the draft report and finally validated after which the Pilot PHE project was launched in Shama District.

A total of Fifty five (55) Youth Peer Educators (YPEs), 25 from Shama and 30 from Dixcove all selected from seven coastal fishing communities were trained to build their capacity for the outreach programme to serve as promoters of reproductive health messages and to refer youth and mothers to the Community Health Centres and the Department of Social Welfare for Referral cases on child neglect, family planning and other health related issues (refer to Table 4 for list of PEs).

The YPEs were also trained:

- In the promotion of the use of condoms and other contraceptive to build community level capacity to take local action against rampant teenage pregnancies; and enhance knowledge on and improve adoption of Family Planning Services.
- To create awareness on access and importance of antenatal and postnatal care concerning pregnant and nursing mothers, using one-on-one and small group discussion approaches as effective tools for behavioural change.
- In creation of public awareness to enhance the protection of coastal ecosystems, the protection and conservation of mangroves and how fishermen could be encouraged to desist from unhealthy fishing practices such as the use of small mesh sizes, dynamite and light fishing while educating and encouraging them to adopt appropriate fishing techniques.

Other strategies for the awareness raising were through interactive public drama performances on the aforementioned issues for behavioural change, nutrition demonstrations on balanced diets and also through adoption of the use of Moringa as a source of food supplement. Eight hundred Moringa seedlings have been distributed and planted in the five project communities in Shama District with the view to making Moringa available to all households for use as nutritional supplement.

Figure 1: Man cleaning the compound (Drama performance at Dixcove)

Figure 2: Peer Educator advising a nursing mother on the use of Moringa (Drama performance at Dixcove)

Figure 3: Offender brought before the traditional authority (Drama performance at Dixcove)

In all the project communities, poverty is usually very high as a result of declining fisheries. Fisheries is the main driver of the economy and as a result lean fish seasons or low fish catches affect other livelihoods as community people are unable to patronise other goods and services in the absence of high fish catches.

Some members of the community who have no daily bread have no access to food. In some of the communities, some households maintain poultry and livestock, but they sell them to supplement their incomes, especially during the lean fish season. Their children are served with *gari* and roasted salty fish or *gari* and sugar soaked in water. A sizeable number of the households own agricultural lands; those who do not own lands are unable to buy foodstuffs and fish during the lean season.

There are a number of poor members in these communities who depend on charity of other members to meet their subsistence needs. Some people may go without food during that time and even some households buy cheap or non-healthy foodstuffs for themselves and their children. Some fishmongers may have sufficient means to overcome this problem in the short term by selling their pieces of clothes and engaging in barter system i.e. exchanging the small quantity of fish they get for foodstuffs.

Fish is invariably one of the most important food items consumed by these community members. However, many of them cannot afford to eat the fish the fishermen catch or buy due to the general decline in fish-catches which has reduced the availability of fish for home consumption. Another reason is the phenomenal increase in prices of all varieties of fish at the landing sites. For them, selling their catch and consuming other sources of protein in their diet has been an economically sound option. Intake of carbohydrates (cassava, *gari*) increased in proportion to the consumption of fish and vegetables.

As contribution to addressing the issues of food insecurity in the communities CEWEFIA introduced alternative livelihood activities like Moringa plantation as a means of food supplement. Eight hundred Moringa seedlings were planted in 800 households. Some households planted their seedlings on their farms because they claimed not to have space in their homes. The **lesson** here is that most of the community members who planted the Moringa in their backyard, were unable to tend it well as domestic animals destroyed them. The few beneficiaries who planted on their farms confirmed that it grew well and they were making good use of them.

The seedlings were planted in the five communities in Shama District. Beneficiaries were taught how to prepare meals with Moringa leaves and how to use Moringa leaves for tea. They were also educated on some nutritional benefits of Moringa. CEWEFIA also **learned** that those who use Moringa leaves for tea often do not fall sick and are always strong. **In *Abuesi,*** one of the communities in Shama, Moringa leaves have been used to cure a child suffering from "*Kwashiorkor*". Consistent use of Moringa has also been proven to increase fertility in livestock.

This was detected in Anlo beach where some goats that fed on Moringa leaves produced more than two kids who are all strong. Most families in the community now feed their livestock with Moringa leaves even more than their own families.

Research has shown Moringa to be very nutritious. It is undoubtedly a remarkable source of nutrition for households. The leaves is said to have the following benefits:

1. Increases the natural defence of the body.
2. Provides nourishment to the eyes and the brain
3. Promotes the cells structure of the body
4. Lowers the appearance of wrinkles and fine lines
5. Promotes the normal functioning of the liver and kidney.
6. Beautifies skin
7. Promotes energy

8. Supports the normal sugar levels of the body
9. It is ante-inflammatory
10. Promotes healthy circulation of human system

Figure 4: Picture of dried Moringa leaves ready for tea

Figure 5: Picture of a planted Moringa seedling at Shama Bentsir

2.0 STRATEGIC PARTNERSHIPS AND CAPACITY BUILDING

CEWEWFIA played a crucial role in building capacity of partners during the program implementation. This was effectively done with the support of its key stakeholder, Ghana Health Service (GHS) and the Environmental Health Unit of the Shama and Ahanta West District Assemblies.

CEWEFIA has built a strong working relationship with its key stakeholders; each stakeholder has a capacity building function (GHS experts in FP / birth control methods /nutrition issues and Environmental Health experts in environmental conservation) that helped to promote good values during project implementation.

Community meetings involving chiefs and opinion leaders were organized to deepen understanding on the need for sustainable use of natural resources such as fishing practices, good sanitation practices while discouraging bad and illegal methods such as sand-winning, water pollution from mining activities all of which pose environmental threats to health and safety.

CEWEFIA also trained a total of 55 selected community peer educators (PEs) and Community Base distributors (CBDs) from the 7 project communities to serve as PHE volunteers/ advocates and also as distributors of FP methods. Refresher training courses were also organised quarterly to update the knowledge base of PEs/CBDs on new trends of PHE issues and their integration.

Figure 6: Peer educators training session at Dixcove

In partnership with GHS, CEWEFIA also organised training programs on nutrition for 125 caregivers and 150 pregnant women and nursing mothers in the five communities in Shama and 100 pregnant women and nursing mothers in Upper and Lower Dixcove. Table 2 and 5 provides number of pregnant women and nursing mothers and names of trained caregivers respectively.

The community leaders helped to introduce the trained PEs/CBDs at community functions such as durbars, festivals and church meetings. Health directorate representatives (attached nurses to CEWEFIA's PHE project) who were trained during the BALANCED project workshop by Joan Castro of PATH Foundation also educated their clients on PHE during antenatal and postnatal care. The strategic collaboration with GHS helped CEWEFIA to achieve desired results.

2.1 Strengthening District Health Officials and Institutions

The interventions included referral systems where PEs refer clients who need critical health care to the health centre.

All referrals that CBD's / PEs gave to their clients are handled by the health officials and necessary attention was given. The attached nurses to the project also took part in health talks and training sessions on maternal care and nutrition for caregivers, pregnant women and nursing mothers. Stakeholder meetings were held to brief diverse institutions on some of the issues that pertain to the local communities. Stakeholders were also provided with quarterly and annual reports which informed the drawing of their annual action plans.

2.2 Building Synergies with Related Health Programs and Interventions

2.2.1 Sectors involved

What has been outlined below shows the role and contribution of each of the stakeholders of the PHE project which contributed to successful implementation.

Table 1: Contribution of Each of the Stakeholders of the PHE Project

Name of organization	**Contribution**
Coastal Resources Centre Ghana	Capacity building workshops for CEWEFIA staff Provision of funds for the PHE project
Friends of the Nation	Orientation in PHE Provision of guidance /Technical support (Coaches)
Ghana Health Service	Technical support (Attached Nurses)
BALANCED	Training in PHE integration Community based distribution of Family Planning items
BCS	Provision of IEC materials
Health Keepers Network – Planned Parenthood Association of Ghana (PPAG)	Provision of Family Planning items and trainings.
World Fish Centre	Capacity building
Shama/Ahanta West District Assemblies	Technical support/ endorsement of project
District Environmental Health	Information on the environmental health situation in the focal area
Department of Social Welfare	Technical assistance (cases on child neglect)
Ministry of Food and Agriculture	Planting of Moringa seedlings

3.0 CATALYZING BEHAVIOURAL CHANGE

The success of the PHE program depends mainly on individual behaviour change; CEWEFIA indulged in so many interventional activities that catalyzed behavioural change. An evaluation was conducted by CEWEFIA using both quantitative and qualitative survey instruments; it included household surveys, as well as in-depth interviews, one-on one discussion and focus group discussions with participants, non-participants and key stakeholders.

The study consisted of three surveys, which were administered at the beginning of the phase I project (November 2010), another one at the end of phase I in September 2011 and the last one at the end of phase II in October 2012 for the same group of people consisting of children 2-5 years, teenagers, adult-males and adult-females and key stakeholders.

The 2012 survey results revealed that 90% of people interviewed were familiar with the activities and interventions of CEWEFIA on PHE issues; 40% heard PHE issues through drama performances; 10% through CEWEFIA PA systems/ megaphones, 11% through group discussions, 28% through radio stations and 11% through community radio announcement, and home based visits.

An interview with the GHS in the Shama District in October 2012 revealed that, in 2010 the rate of persons who accessed family planning in the Shama District was 8%, 2011 was 14% and in the mid of 2012 was 13%. This shows that, attendance keeps increasing from year to year.

Also, Amen Morrison an attached nurse to the project at the Dixcove Government Hospital revealed that as at10th April, 2013, 46 females from Dixcove came to the health centre to access FP services when it was organised free by Marrie Stopes, an international NGO. She said that they had never recorded such high attendance from Dixcove. She was convinced that it was the activities of the trained PEs of CEWEFIA that had convinced some community members to go in for FP services.

Lesson: When outreach programmes are combined with service delivery, higher success is likely to be attained. For instance, chiefs and opinion leaders in some of the communities where CEWEFIA's PHE interventions were conducted have banned totally sand winning activities in the communities. Now Individuals are gradually appreciating the need to stop sand winning and cutting of mangroves.

Broadly, the Integrated PHE interventions have resulted in significant reduction in sand winning; the number of new family planning users has increased and maternal and infant mortality has reduced.

The survey analysis indicates 8% reduction in teenage pregnancy rates and STI infection rates compared to the 16 % rate of infection in our first baseline survey. This suggests indirectly that CEWEFIA's education on condom use was positive and that the awareness creation on family planning and STI infections has enlightened community members of the risks and implications that come with unhealthy lifestyles. All the same, some beneficiaries of the PHE intervention still have bad perceptions about condom-use. Others, as at the time of the intervention had bad perceptions about family planning but were convinced by the Youth Peer Educators to report to the hospital and gradually have become adopters of some FP methods. One dent in the YPE exercise was ineffective tracking and monitoring of all referrals done to the health centres; some referrals were done without records being taken. Some PEs however accompanied patients sometimes to the health centres.

The impact evaluation conducted in 2012 indicated that the strategies used by CEWEFIA in its nutrition education for households (mother and child) have largely contributed to prevention of malnutrition in children of the beneficiaries.

3.1 Community Meetings

CEWEFIA organized community meetings in all the 7 project communities on PHE issues and its integration and held discussions on topics such as biodiversity, mangroves and their importance; sand winning and its effects as well as sanitation around the beaches.

Figure 7: CEWEFIA meetings community at Dixcove

The purpose of these meetings was to make community members understand the need to protect their natural resources. Community members called for enforcement of district bye-laws and local laws. As a result, leaders of these communities now organise communal labour regularly to keep their surroundings clean. The YPEs have also decided to organise clean-up exercises together with the youth in the communities.

3.2 Construction of Nutrition Demonstration/Family Life Education Centre

CEWEFIA proposed to put up structures in Shama and *Abuesi* where some of its activities that involve direct interaction with the women and youth in the community could be held. But only one of these structures was constructed at *Abuesi* due to limited funds and escalating prices of building materials. This structure has served as a meeting place and training centre for women's groups on health and nutrition programs for infants, nursing mothers and pregnant women and also as a refresher training centre for CEWEFIA's peer educators. It also serves as a meeting place for nurses to meet clients during post-natal clinics and other community gathering.

Figure 8: Family Life Education Centre at Abuesi, Shama District

3.3 Demonstrations On Balanced Diets

Preparation of Balanced Diet was another intervention by CEWEFIA. Together with its trained PEs, CEWEFIA gave demonstrations on how to prepare balanced diet in five of the project communities in Shama District during in the Second Phase of the project. The activity demonstrated how community members could prepare more nutritious meals for their children by not having to spend so much money especially on children 6 months to 2 years.

Some of these included milling roasted maize, groundnut, and beans (a mixture called 'weaning mix') and preparing as porridge for their children (6 months to 2 years) instead of buying canned foods which are known to be very expensive and contain some preservatives which may cause harm to the children and affect their cognitive development. Pregnant and nursing mothers were also taught to use pea eggplants or baby eggplants, popularly known in Ghana as *'kantosi', 'saman ntroba' or 'blood tonic'* due to its nutritional value. They were also taught how to use Moringa leaves in their meals as a source of nutrition for their children and the households.

Figure 9: Education of pregnant and nursing mothers on preparation of balanced diets for family at Shama

The main idea behind this nutrition training is to allow beneficiaries to understand that there are many low-cost nutrition supplements in the communities and folks should not use their meagre incomes in buying expensive imported food items that may not even contain appropriate levels of nutritional expectancy.

The demonstration was in two sessions; in the first session, the meals were prepared by CEWEFIA and in the second session the meals were prepared by the mothers under CEWEFIA supervision.

Figure 10 Picture of baby eggplant/ 'saman ntroba' also known as blood tonic

Table 2: Number of Nursing Mothers and Pregnant Women Who Benefited from Nutrition Demonstration

Communities	Pregnant women	Nursing mothers	Children	Indirect beneficiaries (approx. No)	Total
ABOADZE	16	29	33	157	234
ABUESI	23	32	42	194	291
SHAMA APO	21	24	34	157	236
SHAMA BENTSIR	19	38	39	192	288
SHAMA ANLO	33	38	42	226	339
Grand Total	**112**	**161**	**190**	**926**	**1,388**

There were series of nutritional education trainings organized for 125 caregivers; 250 pregnant women and nursing mothers in all the project communities. The issues for the training centred on:

1. Nutrition for mother and child
2. Anti-natal and postnatal clinics
3. Preparation of balanced diet by nursing and pregnant mothers.
4. Exclusive breastfeeding and supplementary foods and
5. Nutritional benefits of Moringa

3.4 Home Based Visits and Learning

Peer Educators were trained to do home visits, counselling and referrals, and the project staff of CEWEFIA from time to time visited the communities to have personal interaction with the PEs and their clients. In the Second Phase of the project, the PEs were asked to select ten (10) households each for their education on PHE issues. The project staffs of CEWEFIA visited the households together with the PEs to measure the impact of the education on their lives.

This method of household selection was adopted because CEWEFIA realised that the peer educators were doing their best during home visits but were not able to visit all the homes. They jumped from one household to the other and ended up not having any impact in the communities.

Lesson: Selection of households for counselling was very good since the work of the PEs were easily measured. It helped CEWEFIA to know whether indeed the trained PEs were doing the work they were trained to do. CEWEFIA realised from the home based visits that 90% of these households selected were faced with poverty due to the fact that they do not plan their families and do not practise any birth control methods. This has led to most families given birth to more children than they can take care of or feed. Ignorance abounds in the communities. People are not even aware of the fact that certain situations make them vulnerable and that they must control birth.

With the help of the PEs CEWEFIA now has 250 households in the five communities in the Shama District (50 in each community) and 150 households in Dixcove of which impact can easily be measured. Data was collected during home visits.

There was a situation in Abuesi where a family of seven under one roof was sleeping in the same room with their teenage daughter who was also pregnant; the man who got her pregnant had run away from the community. The mother of this home who was still in the reproductive age was referred to the health centre to access FP service including her pregnant daughter after she had given birth.

3.5 Drama, Theatre and Community Animation

As part of CEWEFIAs interventions, three drama groups in the seven communities were formed. One in Shama which serves *Shama Apo* and *Bentsir*, *Aboadze* and *Abuesi*; another one was formed in Anlo Beach which serves the community alone and uses Ewe as their medium of communication since residents are migrant fishers who do not understand the *Fanti* language (most spoken Ghanaian language). The third group was formed in Dixcove.

Drama sessions were held to ensure that more community members were reached with the PHE messages. Drama is a means of drawing people's attention to issues pertaining to a community. The drama sessions were therefore performed in the target communities to deepen understanding of community members on PHE issues.

Lesson: drama is a popular art form which readily appeals to people and is an efficient channel for message communication.

This table shows the number of people reached through one of CEWEFIA's recent drama sessions held in the five communities in the Shama District from March to April 2013

Table 3: Number of People Reached Through CEWEFIA

Age/sex / **Community**	**1-14**		**22-25**		**26-35**		**36-49**		**50-**		**Total**
	M	F	M	F	M	F	M	F	M	F	**1201**
Shama Apo	19	22	16	20	18	21	10	19	8	14	167
Shama Bentsir	25	30	10	26	28	33	19	33	10	20	234
Aboadze	30	41	31	24	26	32	18	23	11	19	255
Abuesi	29	48	22	32	21	38	20	25	13	22	270
Aglo Beach	27	42	23	46	20	37	21	26	14	19	275

The objectives for organizing the drama sessions included:

- A larger population size in a community needed to be targeted for dissemination of PHE messages
- Need to use community members in outreach and sensitization on PHE issues pertaining to that community.

The title of the drama was "**too many mouths to feed**" which was performed in all seven target communities. This attracts a lot of community members of different ages and sex.

Community participation in the drama sessions was always good. The issues dramatized are, the effects of teenage pregnancy, having too many children, cutting of mangrove for firewood, illegal sand winning, malnutrition and the adverse effects. During drama sessions, viewers are given the chance to ask questions that bother their minds relative to thematic issues that are dramatized.

They are given answers and those who need further interactions are also taken care of by CEWEFIA Project staff. Example questions and answers generated after dramas are indicated below;

1. What do I do when my child refuse to take the breast milk?
   Answer: Continue to feed baby with breast milk, they might probably not be hungry at the time of breastfeeding or the child might not be feeling well.

2. Is it good to go in for any of the family planning methods while breastfeeding?
   Answer; Yes but visit the health centre for the best method which will be good for you.

3. What is the District Assembly doing about the district's source of water/ *Pra* River which is being polluted by illegal mining
   Answer: The Assembly is developing byelaws to address the issue.

4. If I take Moringa too much won't it affect me?
   Answer: As it is said, too much of everything is bad; you have to use it accordingly.

Lesson: One observation gathered was that many community members were not accessing FP methods because of the mind-set that the methods have many side effects. CEWEFIA learned that drama performances do not only entertain viewers but they also help to correct some human activities that cause harm to the environment.

A survey conducted by CEWEFIA in October 2012 showed that the community members liked the drama sessions and said that such intervention should be included in all CEWEFIA programmes. Most of the community members who were involved in the programme now understand the need to protect their environment and to plan their families.

4.0 CONCLUSIONS

4.1 Challenges/ Lessons Learned

- Some of the CBDs /PEs were not committed because they do not have the spirit of volunteerism. They had other expectations for which they volunteered to join the project.
- Most of the clients who are given referral forms to access health care and FP service demand their transportation cost from the peer educators.
- High unemployment in the communities makes it difficult for a lot of the community members to desist from illegal sand winning, cutting of mangroves and avoid teenage pregnancy.
- Due to ignorance and high illiteracy rates, most community members do not care about their surroundings; most of them think it is the work of the Government.
- Stakeholders' involvement in the Population- Health- Environment Integration Project served as the key to the success of all the interventions.
- Stakeholders' participation and ownership of the project has increased the degree of sustainability in the absence of USAID and Coastal Resources Center.
- Due to the ignorance, some community members were unaware of their vulnerabilities rendered indirectly by the declining fisheries economy and climatic conditions; they as such did not see the essence of controlling birth rates.
- CEWEFIA realised from the home-based visits that 90% of these households selected were faced with poverty due to the fact that they do not plan their families and do not practise any birth control methods.
- Appropriate alternatives must be available for success in ecosystem conservation programmes.

4.2 Implication for Future PHE Interventions

- Having built strong collaboration with the district assembly officials, the local and traditional authorities, opinion leaders and community members involved in the PHE project and having shown much commitment and involvement in the project, CEWEFIA envisages that the collaborators/stakeholders will sustain the PHE project even without CEWEFIA's involvement or when the project phases out.
- Having imparted knowledge to and having reached about 1,500 persons in the 7 target communities, CEWEFIA would wish to continue with the project so as to reach out to the non-beneficiaries in the two Districts.
- CEWEFIA suggests income generation activities to be introduced in the communities to serve as alternative livelihoods in the lean season.
- CEWEFIA suggests that bye-laws from the District Assemblies must be enacted to boost the morale of the peer educators in their work in terms of cutting of mangroves for firewood, illegal sand winning, teenage pregnancy, poor sanitation practices etc.

In conclusion, even though CEWEFIA has tried to do what it can to assist these less privileged with support from its donors, it is yet to derive fully its desired long-term result. Therefore, it is still looking forward to receive funding support after this project ends in order to continue its education campaigns to improve the living conditions of the less-privileged, especially women and children.

Appendix

Table 4: Names of Peer Educators

Number	SHAMA ANLO
1	Peace Dzikunu
2	John Kennedy Attipoe
3	Esinam Bless Kuedufia
4	Simon Atiatorme
5	Beauty Agbenyegah
ABOADZE	
6	Agatha Quayeson
7	Cecilia Nunoo
8	Judith Adokoh
9	Michael Akombeah
10	Abigail Nunoo
ABUESI	
11	Kofi Arhin
12	Elizabeth Kankam
13	Addo Blankson R.
14	Anita Nyarko
15	Peter Awortwe
SHAMA APO	
16	Cecilia Addae
17	Abraham Ogoe
18	Emmanuel Gyahar
19	Fredericka Ainoo
20	Emmanuel Addae
SHAMA BENTSIR	
21	Fanny Harris
22	Isaac Quainoo
23	Rejoice Dzienyeho
24	Sarah Quayson
25	Francisca Addae

Number	UPPER DIXCOVE
1	Ebenezer Quarshie
2	Victoria Ansah
3	Nafisatu Bassaw
4	Derrick Assabil
5	Mary Quarshie
6	Edward Ackon
7	Mary Arthur
8	Ruth Anaman
9	Christain Tetteh
10	Adjobiah Acquah
11	Elicia A. Acquah
12	Mary Bediako
13	Evelyn Aba Yankey
14	Christiana Arthur
15	Eric Dadzie
LOWER DIXCOVE	
16	Emmanuel Nkwantamiah
17	Seth Kofi Nkwantamiah
18	Benjamin Banyah
19	Augustine Bassaw
20	Mark Yalley
21	Hannah Mensah
22	Emmanuel Bentum
23	Hannah Mensah II
24	Susana Tawiah
25	Florence Mensah
26	Joseph Nyanko
27	Robert Hamba
28	Abiglail Boamah
29	Emmanuel Ansah Demlson
30	Eunice Baidoo

Table 5: Name of Caregivers

No	Name	Community
1	Nana Besima Panyin	ShamaApo
2	Ekitekye Adoa	✓
3	Martha Ahin	✓
4	Nana Besima	
5	Nana Adjoa Essoun	✓
6	Aba Awortwe	
7	Ama Aquanua	✓
8	Esi Ackon	
9	Nana Konuaba	✓
10	Nana Tawiah	
11	Catherine Bosomtwe	✓
12	Salomey Otoo	
13	Victoria Emissah	✓
14	Esi Atta	
15	Cecilia Dadzie	✓
16	Grace Kwofie	
17	Ama Atomo	✓
18	Dora Ogoe	
19	Hannah Kwofie	✓
20	Matilda Arthur	
21	Belinda Garbarh	✓
22	Mary Awotwe	Aboadze
23	Amma Nyame Nlsededansanyi	✓
24	Cecilia Quagrine	
25	Adwoa Adissa 1	✓
26	Doris Arther	
27	Anastasia Ansah	✓
28	Cecilia Nunoo	

No	Name	Community
29	Ayishetu Osman	✓
30	Asi Essoun	
31	Rebbecca Egyie	✓
32	Adwoa Adissa II	
33	Florence Awotwe	✓
34	John Nunoo	
35	Jenabu Daua	✓
36	Margret Ackon	
37	Agarthar Baido	✓
38	Aba Akyere	
39	Sara Arthur	✓
40	Monica Egyir	
41	Doris Ansah	✓
42	Lydia Essoun	
43	Asi Tsetsewa	✓
44	Araba Essoun	
45	Salamata Amma	✓
46	Afua Tewiah	
47	Gloria Arhin	✓
48	Salamata Tigani	
49	Adisa Alhassan	✓
50	Mavis	
51	Aba Asiw	✓
52	Seidu Kobina Sam	Abuesi
53	Asi Edua	✓
54	Atta Asaema	
55	Mansa Fenyima	✓
56	Aba Yaa	
57	Afua Dokuwa	✓
58	Araba Gyan	

No	Name	Community
59	Aunte Obo	✓
60	Hanna Mensa	
61	Amma Kaya	✓
62	Amma Kwasiwa	
63	Margret Koomson	✓
64	Phillomina Ansah	
65	Afua Kardge	✓
66	Comfort Essilfi	
67	Naomi Ansah	✓
68	Asi Ayenema	
69	Rita Bondze	✓
70	Comfort Essel	
71	Kwasi Addo	✓
72	Araba Grace	
73	Victoria Ansah	✓
74	John Whyte	
75	Kwesi Addo	✓
76	Elizabeth Nyansen	✓
77	Paulina Acquah	
78	Benedicta Obresi	
79	Mary Mensah	✓
80	Cecilia Eshun	
81	Esi Akantamesi	✓
82	Lucia Nyatsika	Anlo Beach
83	Aku Adzika	✓
84	Aku Adzika	
85	Adzori Kporwedu	✓
86	Vida Aku Awadzi	
87	Doris Awadzi	✓
88	Rita Havor	

No	Name	Community
89	Norviegbor Geyevu	✓
90	Abla Kugbe	
91	Adzovi Agbenyo	✓
92	Soworlo Kofitsey	
93	Fayome Tugbo	✓
94	Selina Adenyo	
95	Kwami Dakorfu	✓
96	Dzakpashie Setuabge	
97	Adzo Alorbu	✓
98	Hellen Avuwoada	
99	Ablavi Lavoe	✓
100	Ataeshie Kporwodu	
101	Confort Gasu	✓
102	Ami Dzimanyi	
103	Baidu Torwudzo	✓
104	Korsor Galley	
105	Elizerbeth Koomson	✓
106	Beuty Agbenyegah	
107	Christiana Kennedy	Shama Bentsir
108	Amina Issah	✓
109	Nana Gyesewa	
110	Margeret Cudjoe	✓
111	Elizabeth Binnah	
112	Gifty Eva Awortwi	✓
113	Alice Vandyck	
114	Cecilia Ayensu	✓
115	Sabbinah Nakwa	
116	Nana Ekua Mbia	✓
117	Florence Garbrah	
118	Maame Adjoamane	✓

No	Name	Community
119	Jemimah Ackon	
120	Mary Kwofie	✓
121	Thereza Akromah	
122	Mena Ano	✓
123	Abena Kwankyewa	
124	Cecilia Mensah	✓
125	Dorcas Etroo	
126	Esi Hyedanawu	✓
127	Cecilia Ansah Eshun	
128	Mena Aba	✓
129	Cecilia Dontoh	
130	Esi Asabir	✓
131	Nana Adjoa Komfo	
132	Nana Adjoafuah	✓
133	Efua Ayele	
134	Victoria Sam	✓
135	Margeret Williams	