

COASTAL SUSTAINABLE LANDSCAPES PROJECT (CSLP)

Environmental Education in Schools: The CSLP Experience



June 2018

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Cover photo: Climate Change Club members on an awareness creation procession on World Environment Day. Credit: Richard Adupong, CSLP.

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Acronyms and Abbreviations

CC	Climate Change
CCC	Climate Change Club
CS	Circuit Supervisors
CSA	Climate Smart Agriculture
CSLP	Coastal Sustainable Landscapes Project
D/A	District Assembly
DoFA	Department of Food and Agriculture
EPA	Environmental Protection Agency
FC	Forestry Commission
GDP	Gross Domestic Product
GoG	Government of Ghana
IEC	Information, Education and Communication
JHS	Junior High School
M/A	Municipal Assembly
MMDAs	Metropolitan, Municipal and District Assemblies
SHEP	School Health and Environment Program
SHS	Senior High School
STMA	Sekondi-Takoradi Metropolitan Assembly
ToT	Trainer of Trainers
UCC	University of Cape Coast
USAID	United States Agency for International Development
USFS	United States Forest Service
WD	Wildlife Division
WED	World Environment Day

Executive Summary

Available statistics show that approximately 57% of Ghana's population is under the age of 25. Those within such age group obviously have roles to play in the future and are often referred to as the youth and future leaders. However, there is little to no involvement of the youth in addressing key socio-economic issues. As a result of such gap, the five-year United States Agency for International Development (USAID) funded and US Forest Service-managed Coastal Sustainable Landscapes Project (CSLP) collaborated with the Ghana Education Service (GES) and other Government of Ghana (GoG) agencies to promote environmental education in schools. This led to the formation of environmental clubs (nicknamed Climate Change Clubs-CCCs) in 20 Junior High Schools (JHS) with current membership of 1,265 students, (47% girls) and significant support to three Senior High Schools (SHS). With the objective of building the capacity of students to serve as environmental ambassadors a number of activities were undertaken by the CSLP and its partners. These included targeted trainings for students, Trainer of Trainers for over 100 teachers, educational training tours for teachers and students, distribution of support and start up items, planting of over 6,000 trees by schools and setting up of 13 Climate Smart Agriculture (CSA) school gardens. Others included the effective management of wetland and mangrove areas, the celebration of four World Environment Days, creative artwork for advocacy campaigns and awareness creation events in local communities.

The various interventions better positioned the students to serve as agents of change in their communities. For instance, as Ghana's economy is dominated by agriculture, the CSA in schools in the farming communities has encouraged more youth to consider agriculture as their future vocation and will improve the contribution of agriculture to the country's Gross Domestic Product (GDP). Similarly, the improved sanitation practices promoted by the schools are aimed at helping to reverse the country's poor ranking by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) as the seventh dirtiest country in the world, and the second on open defecation in Africa. Sanitation in the coastal communities has seen some improvement due partly to education by the schools on the 4Rs (reduce, reuse, recycle and responsible disposal of waste). Likewise, in the fishing communities, the intensive education on the values of wetlands and mangroves and effects of illegal fishing methods are essential to enhancing an improved fisheries stock in the long term.

As the CSLP close-out at the end of September 2018, there is the need to ensure an effective continuation of the CCC activities. This can easily be done as the legally mandated supervisory institution of the schools, the GES, has been part of the process from the onset. In addition, the schools involved are highly motivated to ensure the sustainability of the clubs.

It is recommended that the GES, through their routine monitoring, make a deliberate effort to continue to track activities of the CCCs and provide the necessary supervision and support. Lead teachers of the CCC should continue to stay connected using the social media platform that has proven positive over the period. Finally, CCC executives and members should continue to promote the usefulness of the club to enhance the group quality and boost their membership for greater gains in promoting environmental education, serve as active environmental ambassadors and be keenly involved in discussions about the future. They are the leaders and are competent to continue in this role.

1. Background

The Ghana Coastal Sustainable Landscapes Project (CSLP) is a United States Agency for International Development (USAID) Feed the Future initiative and a U.S. Forest Service-managed intervention being implemented in the six coastal districts¹ of Ghana's Western Region. The project, originally a three-year project (2013-2016) funded with USAID Climate Change monies, was extended initially for another three years through September 2019² with Feed the Future funding, based on successes achieved within the initial phase. It worked to promote low emissions development in Ghana's Western Region by strengthening community-based natural resource management and monitoring, and improving livelihoods in farming and fishing communities.

The project's second phase, under the U.S. government's Feed the Future Initiative, had a specific objective to reduce poverty and increase resiliency in the target communities through improved natural resource management, livelihood diversification, value chain development, and ecosystem conservation and restoration. The project interventions covered 43 core coastal communities with smallholder farmers and fisher folks as the main beneficiaries. In total, project actions of one sort or another had reached more than 82 communities as of early June 2018.

The interventions of the CSLP were guided by two main outcomes: (i) increased incomes from livelihood diversification and, (ii) improved environment and natural resource management. Specific activities included agroforestry and forestry best practices, short- and medium-term livelihood improvement activities (e.g. beekeeping, climate smart agricultural, CSA, vegetable production), on-farm tree planting of commercial and agroforestry species and management of greening areas / urban greeneries. Others included wetland/mangrove conservation, spatial planning, Village Savings and Loan Associations (VSLAs) and youth engagement (via formation of environmental clubs in public schools).

The CSLP used in-field consultations, targeted trainings, strategic capacity building, detailed technical assistance, and participation in institutional/policy level discussions and workshops based on field-level experience to achieve project objectives.

¹ Shama, STMA, Ahanta West, Nzema East, Ellembelle and Jomoro Metropolitan/Municipal/District Assemblies (MMDAs)

² This was subsequently reduced to only two years, to September 2018, due to lack of financial resources in USAID/Ghana's budget

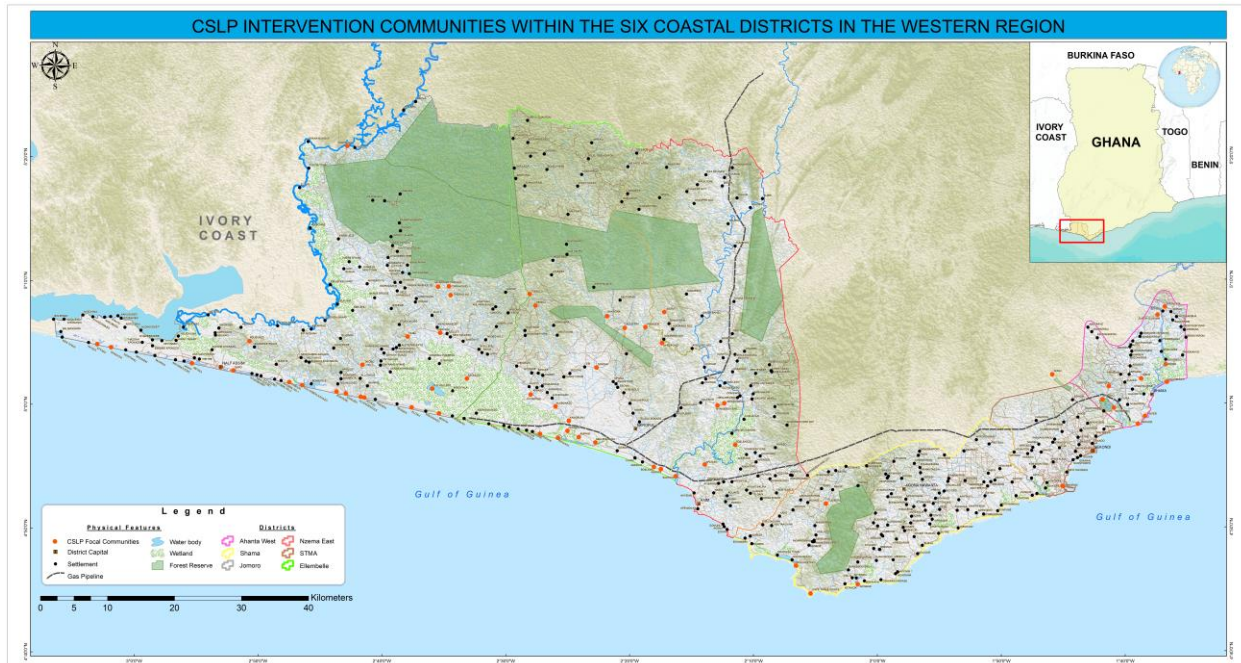


Figure 1: Map of CSLP intervention communities

2. Introduction

As a behavioral change project, the United States Agency for International Development (USAID) funded and US Forest Service-managed Coastal Sustainable Landscapes Project (CSLP) targeted youth, to help in awareness creation and to promote positive attitudinal change. As such, youth in Junior High Schools (JHS) and Senior High Schools (SHS) in some of the project intervention communities across the six³ coastal Metropolitan, Municipal and District Assemblies (MMDAs) of Ghana's Western Region were targeted for the formation of Climate Change Clubs (CCC). Where there were existing science or environmental clubs the CSLP supported their activities and added a climate change awareness focus. In the formation of CCCs, approvals were sought from the various district directorates of education and an effective cooperation model was established with the Ghana Education Service (GES) to engage the schools. Members of the CCCs were educated on diverse environmental topics and positioned to serve as agents of change and disseminators of information in their communities and as such serve as environmental ambassadors.

³ Shama, STMA, Ahanta West, Nzema East, Ellembelle and Jomoro

3. Methodology

3.1. Formation of Climate Change Clubs (CCCs) and support to other schools

As of June 2018, a total of 20 CCCs had been formed in selected Junior High Schools in the coastal districts through a collaborative effort by the CSLP and the GES. The current membership⁴ of the CCCs is 1,265 students, with 47% girls. In addition, three SHS were also supported to enhance environmental education. The spread of the CCCs in the various districts is shown in Figure 1 and details of the SHS supported are depicted in Table 1. The names and current membership of the various CCCs are also presented in Figure 2. Further details of the CCCs are available in Table 3 under Annex 2. With the objective of building the capacity of students to serve as environmental ambassadors, several activities were undertaken by the CSLP and GES. These included targeted trainings for students, Trainer of Trainers (ToT) for teachers, educational training tours for both teachers and students, distribution of support items, tree planting and setting up of school gardens. Table 2 (under Annex 1) presents detailed interventions with schools in each of the districts.

Table 1: School clubs formed in JHS & SHS in the MMDAs supported by CSLP

District/Municipal	Clubs formed (in JHS)	No. of SHS supported	Name of SHS
Shama District	10	1	Shama SHS
Ahanta West Municipal	2	-	
Nzema East Municipal	2	-	
Ellembelle District	1	2	<ul style="list-style-type: none">• Kamgbunli Uthman Bin-Affan Islamic• Nkroful Agriculture SHS
Jomoro Municipal	5	-	

⁴ Membership was voluntary and changed with time; especially at the beginning and end of an academic year

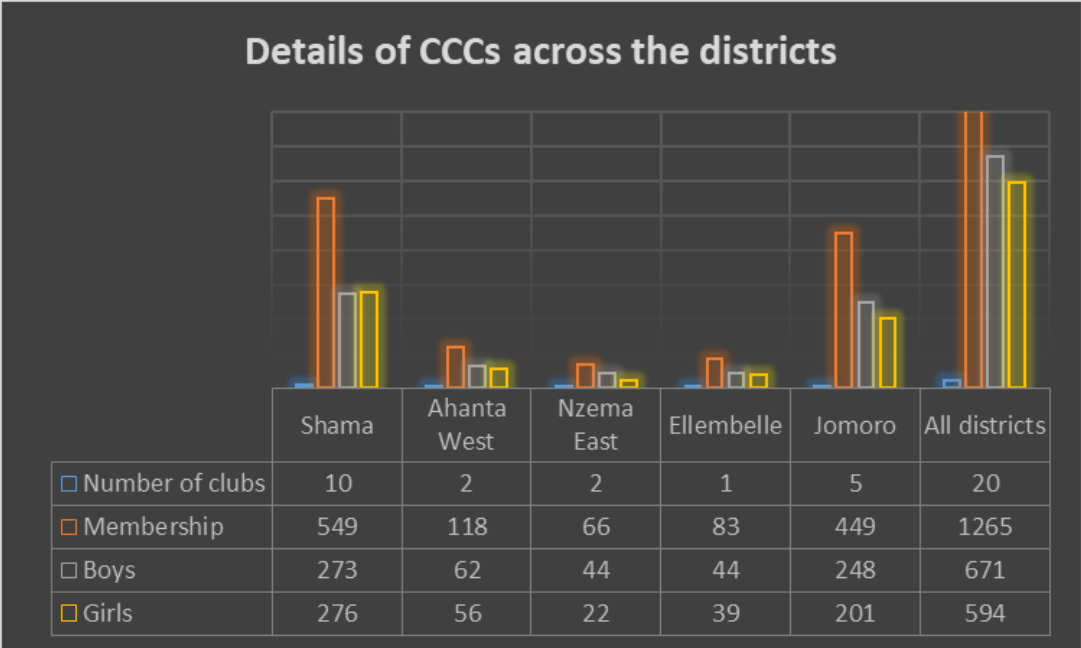


Figure 2: Details of climate change clubs across the districts

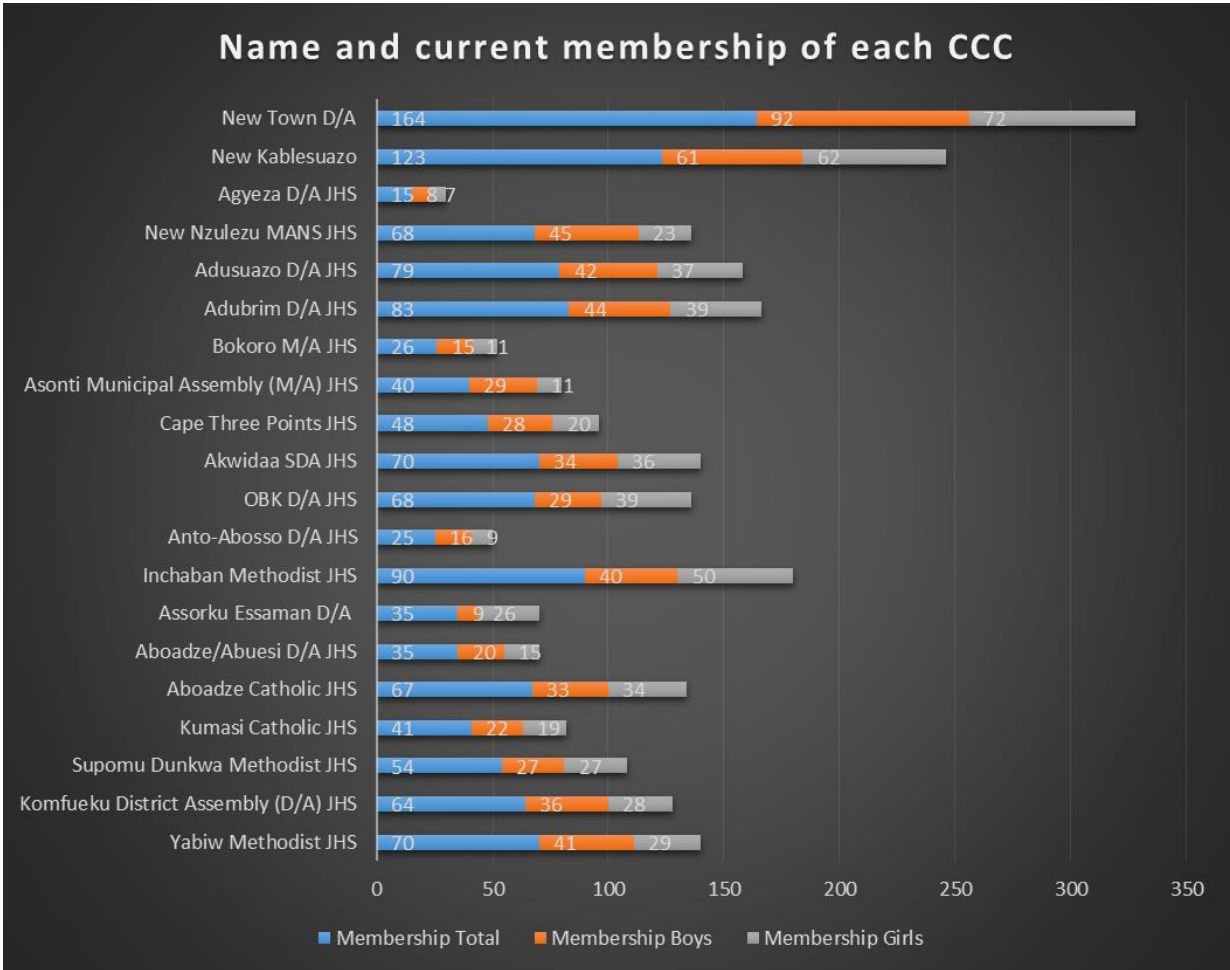


Figure 3: CCCs formed and current membership

3.2. CSLP's Capacity Building Activities for CCCs

3.2.1. General Activities Promoted by the CSLP

3.2.1.1. Trainings for Teachers

To ensure that teachers are well empowered with the needed knowledge on the environment, a number of trainings were conducted. In most instances, the CSLP in collaboration with the GES and other partners, facilitated Trainer of Trainers (ToT) on environment & other related topics (e.g. climate change, leadership, gender) for lead teachers from CCCs and schools without such clubs. The ToT proved successful in reaching more students (such as non-CCC members). For instance, a ToT on waste management conducted for 74 teachers from 37 public schools in Shama district (and 39 non-teaching staff at the district GES directorate) reached 1,055 students (532 boys, 523 girls) as a result of the follow-up trainings by the trained teachers. A similar ToT on sanitation conducted jointly by the CSLP, GES, Environmental Protection Agency (EPA) and the Wildlife Division of Forestry Commission (WD of FC) for 110 teachers from 74 schools (in Jomoro, Nzema East and Ahanta West municipality and Ellembelle district) is expected to reach over ten thousand students. Other key ToTs conducted were on the following topics:

- Food security and climate change
- Agriculture in schools
- Urban forestry
- Gender and the environment

These ToT were shared with students by the trained teachers from the various schools. A couple of photos of some ToT are available under session 6 of photos.

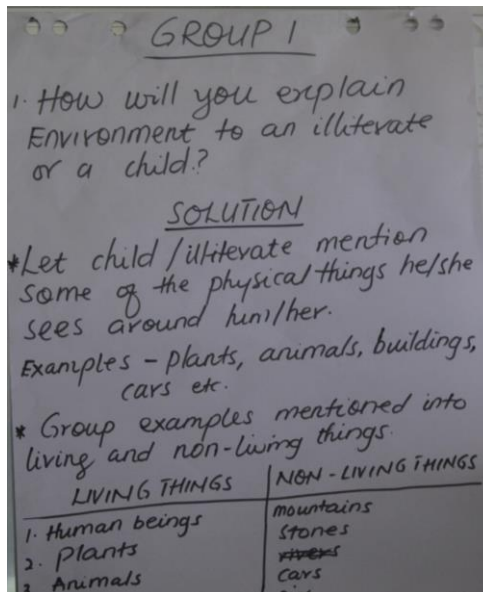


Figure 4: Presentation of group work by a team of teachers at a ToT

3.2.1.2. Trainings for students

In addition to trainings for teachers, the CSLP and its partners organized trainings directly for students. A number of schools received trainings from the CSLP and the Wildlife Division of the Forestry Commission. The CSLP and WD of FC led trainings for several schools on the importance of wild animals and the need for their protection. Likewise, trainings on effective ways of communicating environmental issues were held for most CCCs. Photos of some trainings conducted for students are available under session 7 of photos in Annex 3.



Figure 5: Training for MANS JHS at New Nzulezu (Jomoro) by Wildlife Division and CSLP

3.2.1.3. Development of IEC Materials

To better communicate with students and ensure improved understanding of key environmental issues, the CSLP developed a number of Information, Education and Communication (IEC) materials for use by students. Key among the IEC items were brochures, factsheets and polo shirts. For example, a simplified brochure on climate change was developed and over 1000 copies were distributed to CCCs and non-club members. The brochure made use of several local photos and artwork developed by some CCCs.

3.2.1.4. Tree planting in schools and communities

Indiscriminate cutting of trees is a common issue in most communities on the CSLP landscape. There are several instances where people cut down trees without replacement. Also, in some communities, the compound of schools are being encroached by private developers due to competing demands for land and poor land use planning. To help reverse the issue of rampant tree cutting and ensure more trees are brought back on land, the CSLP facilitated the supply of more than 6,000 tree seedlings to twenty-two schools. The schools, embraced the tree planting and promoted urban greeneries in their schools and

communities. The CSLP's monitoring of the trees recorded a survival rate of 75%. Session 5 under photos of annex 3 has some pictures of tree planting in schools.



Figure 6: Traditional leaders support CSLP's effort for students to plant trees in communities

3.2.1.5. Creative Drawing/Artwork

To foster innovation in learning, the CSLP procured materials for artwork for all 20 CCCs. The items included watercolor pencil, cardboard, crayon, permanent markers, pencils, khaliko, poster colors and mathal sets. Many schools came up with creative drawings on common environmental issues in their communities and used such materials for their advocacy campaigns. For instance, New Town JHS in the Jomoro Municipal used its artwork on illegal fishing methods to hold community sensitization sessions with fishermen.

Most CCCs developed great artwork on topics such as sanitation, pollution, deforestation and their impacts. For example, as Ghana is ranked as the seventh dirtiest country in the world and second on open defecation in Africa by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). Artwork (and advocacy actions) by some schools have centered on the 4Rs to addressing sanitation: reduce, reuse, recycle and responsible disposal of waste. A sample of the great artwork is available under session 4 of photos.



Figure 7: Artwork on forest depletion by Adusuazo JHS CCC

3.2.2. Special / Unique Activities Promoted by the CSLP

3.2.2.1. Setting up of Climate Smart Agriculture gardens

In the agrarian communities, many farmers are employing bad agronomic practices such as slash and burn, poor handling and application of agrochemicals, indiscriminate cutting of trees and removal of vegetation cover. These practices are threats to the environment, food production, and climate change. In view of such harmful practices, the CSLP introduced the concept of Climate Smart Agriculture (CSA) to communities, farmers and schools. The CSA approach involves environmental friendly and sustainable farming practices and described by farmers and the schools as *‘organic farming’*. In the various schools, the CSA effort by the CSLP and the Department of Food and Agriculture (DoFA) included series of targeted trainings (including hands-on, mentoring and coaching), establishment of demonstration fields and supply of basic inputs (e.g. improved seeds, garden fencing materials, mattock, shovel, watering can, water storage containers, cutlasses, rake, hoe and spade).

For the 20 CCCs, thirteen⁵ have environmentally friendly gardens established around their school premises. Out of the 13 schools, nine were new to school gardens and four had an existing garden though not in good shape and not into CSA. In addition to the 13 JHS engaged in CSA, three SHS⁶ were supported to initiate the CSA practice. In addition to trainings in the schools for both teachers and students, some teachers and students from the various JHS and SHS were taken on separate educational tours to well-established private sector CSA sites such as Ankobra Beach Farm/Hotel's organic vegetable field in the Nzema East Municipal. The private sector operator is a major promoter of good farming practices in the region as well as a supplier of organic pesticides and soil amendment products.



Figure 8: Fenced CSA school garden at Komfueku JHS

It is worth noting that two of the clubs have won awards for the promotion of agriculture at Ghana's Farmers Day celebrations. The first was Asonti M/A JHS at 2015 Farmers Day event in Nzema East Municipality. Next was the Komfueku D/A JHS which won an award on Ghana's 33rd Farmers Day celebration at Shama district in 2017. The latter has also been selected by Department of Food and Agriculture (DoFA) for the government's flagship program; Planting for Foods and Jobs.

As Ghana's economy is dominated by agriculture. The sector employs over 40% of the working population and approximately 57% of the population under the age of 25. The CSLP's promotion of CSA in the schools also encourages more youth to consider agriculture as their future vocation. By so doing, it will help contribute to addressing the food insecurity issues in the region and assist the government to further improve the contribution of agriculture to the country's Gross Domestic Product (GDP).

A recent study⁷ by the CSLP revealed that already some students are sharing the organic farming practices with their parents and other relatives and also replicating the lessons from their school gardens in portions of their parent's farm. In Asonti for example, the study emphasized that adult farmers visit the school's CSA demonstration garden to learn from the teachers and students (their children) and such parents, who mostly practice inorganic farming, are amazed at the organic farming practices by the

⁵ **Shama district:** 5 schools (Komfueku, OBK, Supomu-Dunkwa, Anto-Abosso & Assorku Essaman JHS). **Ahanta West:** 2 schools (Akwidaa & Cape Three Points JHS). **Nzema East:** 2 schools (Asonti & Bokro M/A JHS). **Ellembelle:** Adubrim JHS. **Jomoro:** 3 schools (Aduzuazo, New Kablesuazo & MANS JHS).

⁶ **Shama district:** Shama SHS. **Ellembelle:** Nkroful SHS & Kamgbunli Uthman Bin-Affan Islamic SHS

⁷ USFS-IP (2018), Rapid Appraisal on Climate Smart Agriculture Vegetable Production; farmers perspective on the benefits, challenges and lessons. USAID Coastal Sustainable Landscapes Project for the Western Region, Ghana. 25 pages

school. It must be noted that in all the communities, high school students accompany and help their parents on their farms mostly on weekends and vacations. As such, as they gain a greater awareness of the role of agriculture in the economy and society, it is expected they will grow to become responsible citizens who support wise agricultural practices and policies. A number of photos of the CSA activities in schools are available under session 3 of photos under annex 3.

3.2.3. Wetlands and Mangrove Management

Wetlands and mangroves are an important component of Ghana's biological resources and provide numerous benefits/environmental services. For instance, they serve as nursery and spawning areas for commercially important coastal fin and shell fishes, they are a habitat for animals like monkeys and birds and they also help in flood control and storm surges. But the wetland and mangrove ecosystems in the country are under serious threat due to the conversion of this resource to other land uses such as industrial, agricultural and residential purposes, and the over-cutting of mangroves for fuel and for charcoal production by resource users in communities fringing mangrove areas.



Figure 9: Training on wetland monitoring for students

To help enhance awareness on the values and importance of the resource, the CSLP in collaboration with the University of Cape Coast (UCC), engaged two schools; Yabiw Methodist JHS in Shama district and Akwidaa SDA JHS in Ahanta West Municipal. On two occasions, two teachers from each school were sponsored by the CSLP to participate in a 2-day residential ToT workshop on wetlands and mangroves at the UCC in 2016 and 2017. The two sessions covered modules 1-4 of a wetland curriculum developed by the UCC's Center for Coastal Management. This was followed by another ToT on modules 5-7 held in Takoradi for three teachers from each school in June 2018 and facilitated by

UCC lecturers. Each trainer of trainer sessions focused on different aspects of the wetland training module.

Teachers and students of these schools support mangrove nursery establishment in their communities, take active part in mangrove replanting, monitor the growth of mangroves, embark on educational tours to enhance their knowledge on the resource and champion general community sensitizations on the values of the natural resource. As the two schools are within fishing communities, they have successfully established the direct link between the health of their wetlands/mangroves and fisheries stock. With rampant reports of illegal fishing practices (e.g. use of chemicals, unapproved fishing nets and lights for night fishing) in the communities, the trained teachers and students are sensitizing the fishers on the immediate and long-term impacts of such illegal fishing practices in their communities. Interestingly, some fisherman in the two communities have claimed stopping such unsustainable fishing practices due to education and concerns raised by their children (members of the CCC).

3.2.3.1. Celebration of International Day

The CSLP as part of its communications strategy, sought to commemorate some key thematic days of both international and local significance and of relation to a healthy environment. One of such days was World Environment Day (WED); celebrated every year on June 5 and initiated by the United Nations Environment Program's (UNEP) as an avenue for encouraging worldwide awareness and action for the environment. The CSLP and CCCs have over the period, held four successful celebrations in four districts. Four schools have led celebrations of World Environment Day from 2015 to 2018. In 2015, Adusuazo D/A JHS in Jomoro Municipal led the event and was supported by Asonti M/A JHS from Nzema East. In 2016, the attention moved to the Shama district and the event was championed by the Komfueku D/A JHS. Then in 2017, the celebration was held in Ahanta West municipal by Akwidaa SDA JHS and Cape Three Points schools. June 5, 2018 witnessed another celebration at the Western Region capital and was facilitated by students of Kow Nketsia A.M.E Zion JHS at Nkotompo.



Figure 10: Drama by students at WED celebration

At such celebrations, the schools embark on awareness creation/enhancing procession holding placards (amidst brass band music) and hold a mini durbar; usually chaired by the community chief. The durbar records Educative-Entertainment (EE) drama, cultural display and poetry recitals focused on the theme and performed by the students. The WED is always marked in partnership with government agencies, local Non-Governmental Organizations (NGOs), traditional leaders and communities. Key among the GoG agencies are the GES, district assemblies, EPA, WD, FSD and Physical planning. The celebrations always witness good reportage from various media outlets: the print, online, radio and TV. Photos of some WED celebrations are available under session 2 of photos in the annex 3.

3.2.3.2. Beekeeping in Senior High Schools

The CSLP and farmers in the six coastal districts identified and prioritized beekeeping as a win-win sustainable livelihood and landscapes that needed to be developed to help avoid deforestation and also serve as an additional livelihood source. Over time, more than 200 farmers with little to no knowledge in apiary management became active beekeepers with CSLP support through series of trainings (including educational tours, mentoring and coaching) and the provision of some basic start-up items⁸. The focus was solely on farmers.

Subsequently, and based on a formal request by authorities at Shama Senior High School, the CSLP offered training on beekeeping for staff and students of the school. In all, 82 agricultural science

⁸ The items included four Kenyan top bar beehives, beehive stands, a protective bee suit with detachable veil, hand gloves and bee wax (for attracting bees to the hives)

students (56 boys, 26 girls), 4 male teachers and 1 technician of the institution were trained. The academic training included the ecological and economic rationale of beekeeping, social divisions and life cycle of honey bees, setting up apiaries, care of honey bees, equipment for beekeeping, management of the honeybee colonies and harvesting honey. In addition, four sets of beekeeping start-up items were supplied to the school and enabled them to set up the apiary. The apiary was subsequently set up in a fallow area on the school compound and managed by the head of the School's Agriculture Science Department.



Figure 11: Presentation of beekeeping start-up items to Shama SHS

3.3. Nature and Activities of Climate Change Clubs

The CCC have their own executives; either elected or appointed, and help to effectively steer the affairs of the clubs. At the beginning of each academic term, CCC lead teachers in consultation with the club executives and members, prepare an "action plan" to guide their activities for the term. Each CCC has a specific meeting day and time agreed by all members and which do not conflict with 'standard GES' curriculum training hours. They also have their slogans. Example;

Komfueku JHS in Shama district:

*Slogan: **Greening the environment...our priority, our future***

Akwidaa SDA JHS in Ahanta West:

*Slogan: **CCC, Protect the environment***

CCC, Keep the environment clean

CCC, Keep the environment for future use

Asonti M/A JHS in Nzema East:

*Slogan: **Clean Environment, Good Health***

Adubrim JHS in Ellembelle district:

Slogan: CCC, Keep the environment clean

Adusuazo D/A JHS in Jomoro district:

Slogan: Our forest, our lives

The CCCs are contributing to help address diverse environmental issues. Key among the issues are poor sanitation, illegal fishing, bad farming practices, indiscriminate cutting of mangroves and other trees and beach sand collection (“sand winning” in local parlance).

Specific activities by the clubs include;

- Artwork / creative drawings
- Competitions (quizzes, football)
- Talk on environmental topics
- Clean-up exercises (around school premises and in communities)
- Tree planting (around school premises and in communities)
- Entertainment-Education (EE) drama
- Setting up of school gardens to promote organic farming practices (where land is available)
- Community sensitization

4. Findings and Discussions

4.1. Stakeholder Coordination

There was effective collaboration among stakeholders engaged in working with schools and coordination was done to the best possible terms. As mentioned earlier, a joint effort by the EPA, the GES, the WD of FC and the CSLP at promoting educational campaigns in the schools proved very effective. The four institutions conducted a ToT on sanitation for 110 teachers from 74 schools across four districts, followed up on agreed number of schools and developed monitoring and reporting guidelines/templates for similar engagements. On the CCCs, the CSLP, the GES and other partners effectively led, monitored and coordinated activities of the clubs. In the Shama district for example, after the CSLP led the initial process to form 2 clubs, the directorate of the GES selected other schools and led the formation process; and thus, explains why 50% of the CCCs were in the district. The same applied to the Jomoro municipal with 25% of the clubs.

4.2. Staying updated

The CSLP, through its regular stakeholder engagements and other reporting platforms, updated stakeholders on the implementation status of its interventions. For instance, through the CSLP’s

quarterly meetings⁹ with the MMDAs, stakeholders were updated on the CCCs activities by the CSLP and the GES.



Figure 12: Jomoro GES staff delivering a presentation at a joint stakeholders meeting

5. Lessons Learned & Recommendations

Indeed, effective involvement of the youth (regarded as the future leaders) in addressing issues about the future is a necessity and not a misplaced priority. Over the period, the CSLP has noted that:

- Strengthening of existing environmental clubs and formation of new clubs where necessary is essential for more youth to efficiently serve as environmental ambassadors. Peer-to-peer learning and experience sharing is greatly enhanced when people of similar background are in a group.
- The trainer of trainers (ToT) approach is highly effective and reaches more students but requires good strategy and commitment to do the follow-up monitoring.
- Hands-on trainings are powerful and efficient as it encourage replication. This has helped in the establishment of environmentally friendly gardens in schools and reports of students promoting organic farming practices in their parents' fields.
- Effective collaboration with other agencies takes time but is worthwhile. When there are combined efforts greater results are achieved. Participants (and trainers) also benefit more broadly by the different perspectives being offered by multiple institutions on the same subject matter. When two or more institutions are collaborating to accomplish a specific task, it is

⁹Joint meeting with five districts with at least seven departments from each district. The departments included the GES, the District Coordinating Unit, the Business Advisory Center (BAC), Community Development (CD),

prudent to ensure one institution is tasked to play an effective coordinating role. This will help to ensure agreed tasks are performed within the stipulated time frame.

- Teachers ought to have a common platform to share ideas, lessons, and experience and promote activities.

As the CSLP close-out at the end of September 2018, there is the need to ensure the schools effectively continue their environmental education campaigns. This can easily be done as the legally mandated supervisory institution of the schools, the GES, has been part of the process from the onset. In addition, the schools involved are highly motivated to ensure the sustainability of the clubs. The following suggestions/recommendations are noted as points that can contribute to the sustainability of what exists today.

- **Routine monitoring by GES to highlight CCC activities:** In their effective supervisory activities, GES, through their School Health and Environment Program (SHEP) Coordinators, Circuit Supervisors (CS) and other field officials¹⁰, embark on routine monitoring in schools. It is recommended that in such monitoring, a deliberate effort be made to continue to track activities of the CCCs and provide the necessary support. It will be great to always check the action plans developed by the CCCs (mostly developed at the beginning of the academic term) and monitor its implementation.
- **CCC teachers to stay connected using social media:** Over a year now, lead teachers of the clubs have stayed connected through social media platform (WhatsApp). They use the platform to share ideas, lessons, and experience and update each other on activities implemented. As the platform has proven very effective, it is just appropriate and prudent to keep it alive. In addition, teachers who leave the school/CCC should ensure that they effectively handover their knowledge and WhatsApp connectivity.
- **CCC executives to promote usefulness of the club:** with its voluntary membership, the CCC lead teachers and executive ought to continuously remind its members of the usefulness of the club and work to enhance the group quality and not necessarily increasing membership. The quest to boost membership will be key at the end and beginning of each academic year when final year students exit and new student enroll. It will be imperative to continue to hold sensitization meetings with new students and register interested students for the CCC.

¹⁰ Example: Coordinators for Girl Child, Basic Education, Science & Mathematics, Special Education.



Figure 13: Educational tour for 24 teachers from 5 districts to Ankasa rainforest

Annexes

Annex 1: Composite table of activities with CCCs across all districts

Table 2: CSLP activities with CCCs, SHS & other schools

Activity	Shama	Ahanta West	Nzema East	Ellembelle	Jomoro	Comments
General						
Formation of Climate Change Clubs (CCCs)	✓	✓	✓	✓	✓	Number of schools with CCC per district Shama: 10; Ahanta: 2; Nzema East: 2; Ellembelle: 1; Jomoro: <i>Refer to Table 3 for full details of CCCs: school name, membership, lead teachers, key activities</i>
Establishment of Climate Smart Agriculture-CSA gardens in Junior High Schools (JHS)	✓	✓	✓	✓	✓	13 JHS: 9 new gardens established. Supported 4 existing (Shama-3, Ahanta West-1, Nzema East-2, Ellembelle-1, Jomoro-1). Supported other schools with existing school gardens Items supplied to eight¹¹ CCCs: improved seeds, water drums, fencing nets, rake, cutlass, fork & spade.
CSA in Senior High Schools (SHS)	✓	✗	✗	✓	✗	Trainings (incl. hands-on & educational tours) conducted for 3 SHS Ellembelle: 2 SHS <ul style="list-style-type: none"> Kamgbunli SHS 45 (35 students-26boys, 9 girls, 10 teachers—all men) Nkroful SHS 147 (126 students-100boys, 26 girls; 21 teachers—18men, 3women). Shama: 1 SHS <ul style="list-style-type: none"> Shama SHS 79 (64 students—46boys, 22 girls; 11 male teachers, 4 labourers—all males)
Tree planted by students	✓	✓	✓	✓	✓	2016: Over 5,000 tree seedlings supplied (at full cost to CSLP) to 22 public schools across all districts. 2017: close to 1,000 seedlings supplied to schools. Shama SHS received the highest number
Artwork items/tools: distributed to CCCs	✓	✓	✓	✓	✓	Supplied to all 20 CCCs. Items supplied: Water color pencil, cardboard, crayon, permanent markers, pencils, khaliko, poster color and mathal set
Beekeeping in SHS	✓	✗	✗	✗	✗	Beekeeping training for SHS: Shama district: for 82 Agricultural Science students (56boys, 26 girls), 4 male teachers and 1 technician of Shama Senior High School in December 2017. 4 set of beekeeping start-up items delivered to the school.
Educational tours	✓	✓	✓	✓	✓	Educational tours organized for some CCCs <ul style="list-style-type: none"> Yabiw JHS to Elmina & Cape Coast on wetlands mgt—with UCC Asonti M/A JHS, Akwidaa SDA JHS, Yabiw JHS & Komfueku JHS CCCs visited Takoradi B-BOVID & Angu agroforestry/apiary sites Komfueku JHS visited Ankobra Beach hotel's organic

¹¹ **Shama:** Komfueku & OBK JHS, **Ahanta West:** Cape Three Points & Akwidaa SDA JHS. **Nzema East:** Asonti & Bokro JHS. **Ellembelle:** Adubrim JHS. **Jomoro:** Adusuazo & New Kablesuazo JHS.

Activity	Shama	Ahanta West	Nzema East	Ellembelle	Jomoro	Comments
						vegetables site • 24 teachers from 12 CCCs across all districts visited Ankasa rainforest
Trainings conducted						
Trainer of Trainers (ToT) on Sanitation	✗	✓	✓	✓	✓	<p>Collaboration by the CSLP, GES, Environmental Protection Agency-EPA & Wildlife Division-WD of Forestry Commission)</p> <p>2017: Trained 30 teachers from 15 schools in Jomoro (Nov 2017) & 30 teachers from 15 schools in Ellembelle district (Dec 2017)</p> <p>2018: Trained 29 teachers from 29 schools in Nzema East (Feb 2018) and 30 teachers from 15 schools in Ahanta West (March)</p>
Trainer of Trainers (ToT) on Waste Management	✓	✗	✗	✗	✗	For 113 GES officials (including 74 teachers from 38 schools). Follow up done in 37 schools with 1,780 students trained. Collaboration with Shama District Directorate of Education
ToT on Gender and Environment	✓	✗	✗	✗	✗	Conducted for 58 female teachers from 29 schools. Follow up done in all 29 schools with 1,055 (532 boys, 523 girls) students trained. Collaboration with Shama District Directorate of Education
Training on Environment, Leadership and Food security	✓	✗	✗	✗	✗	Conducted for 30 teachers from 10 Climate Change Clubs (10 schools) in Shama district. Collaboration with Shama District Directorate of Education
Urban Forestry for teachers	✓	✓	✓	✓	✓	Conducted for over 100 selected teachers in all districts.
ToT on Agriculture in schools	✗	✗	✗	✗	✓	Conducted for 12 teachers from 5 schools with climate change clubs.
Others						
Celebration of International Day (World Environment Day -WED)	✓	✓	✗	✗	✓	2015: WED held on June 5 at Adusuazo, Jomoro District 2016: WED held on June 5 at Komfueku, Shama District 2017: WED held on June 5 at Cape Three Points, Ahanta West District.
Wetland Conservation	✓	✓	✗	✗	✗	Shama District: Yabiw wetland. Ahanta West: Akwidaa wetlands Wetland monitoring training conducted for teachers and students of Yabiw Methodist JHS & Akwidaa SDA JHS (collaboration by CSLP & University of Cape Coast-UCC). Trainer of Trainers (ToT) conducted for teachers.
Update meeting with district GoG officials	✓	✓	✓	✓	✓	Meetings held on quarterly basis. GES among 7 departments that participated in each district.
Awards (Farmers Day celebrations)	✓	✓	✓	✓	✓	2015 Farmers Day: Asonti M/A JHS CC Club received award from the Municipal assembly 2017 Farmers Day: CSLP awarded Komfueku D/A JHS

Annex 2: Specific details of CCC across all districts

Table 3: Details of CCCs formed

No.	District	Name of CCC	Location	Membership			Special intervention		Phone No of key Contact Teacher(s)
				Total	Boys	Girls	CSA	Wetland mgt	
1.	Shama	Yabiw Methodist JHS	Yabiw	70	41	29		✓	Patrick-024 618 2558 Gina-024 328 5276
2.		Komfueku District Assembly (D/A) JHS	Komfueku	64	36	28	✓		Head Teacher-024 233 4499. Sir Apprey-024 3888 990
3.		Supomu Dunkwa Methodist JHS	Supomu Dunkwa	54	27	27	✓		Sir Ben 024 94 16 403 Maxwell 026 260 7620
4.		Kumasi Catholic JHS	Kumasi	41	22	19			Alhaji 020 88 92 637 Enoch 024 1600 854
5.		Aboadze Catholic JHS	Aboadze	67	33	34			Osei-024 32 41 858
6.		Aboadze/Abuesi D/A JHS	Aboadze	35	20	15			Anna Cudjoe 054 17 83 752. Deborah Abakah 024 26158 39
7.		Assorku Essaman D/A	Assorku Essaman	35	9	26	✓		Sam-024 650 74 84
8.		Inchaban Methodist JHS	Inchaban	90	40	50			Enoch -020 92 87 530 Martin -020 32 35 857 / 050 13 55 806
9.		Anto-Abosso D/A JHS	Anto-Abosso	25	16	9	✓		Anita Prah 020 84 58 392. Ebenezer 024 065 67 86
10.		OBK D/A JHS	OBK	68	29	39	✓		Eunice Mensah 024 28 48 625. Francis Mensah 024 66 79 491
11.	Ahanta West	Akwidaa SDA JHS	Akwidaa	70	34	36	✓	✓	Mike-054 82 58 618 Joseph-055 34 98 524
12.		Cape Three Points JHS	Cape Three Points	48	28	20	✓		Augustus-054 244 0805 / 026 804 0269
13.	Nzema East	Asonti Municipal Assembly (M/A) JHS	Asonti	40	29	11	✓		Charles-024 308 92 53
14.		Bokoro M/A JHS	Bokoro	26	15	11	✓		Daniel-050 47 999 67 / 054 9641 505
15.	Ellembelle	Adubrim D/A JHS	Adubrim	83	44	39	✓		Kingsford 024 810 0215
16.	Jomoro	Adusuazo D/A JHS	Adusuazo	79	42	37	✓		Ibrahim-054 18 13 141 Jack-054 44 99116
17.		New Nzulezu MANS JHS	New Nzulezu	68	45	23	✓		Richard-024 58 96664 020 9221428
18.		Agyeza D/A JHS	Agyeza	15	8	7			Eshun 050 351 5307
19.		New Kablesuazo	New Kablesuazo	123	61	62	✓		Felix 024 0260 570
20.		New Town D/A	New Town	164	92	72			Stephen 054 92 99 167
Total				1,265	666	599			

Annex 3: 12 photo sessions on activities with CCCs & other schools

Figure 14: Photos session

<p>Photo session 1: Educational tours sponsored by the CSLP; with approval from GES</p>		
		
<p><i>Yabiw Meth. JHS (Shama district) at wetland sites in Elmina & C/Coast</i></p>	<p><i>Asonti M/A JHS (Nzema East), Akwidaa SDA JHS (Ahanta West), Yabiw & Komfueku JHS (Shama district) at B-BOVID /TRACTOR agroforestry/livelihood diversification site</i></p>	
<p>Photo session 2: Celebration of WED sponsored by the CSLP; collaboration with GES and other government agencies</p>		
		
<p><i>Drama by Adusuazo JHS (Jomoro)</i></p>	<p><i>Cultural display by Akwidaa SDA JHS</i></p>	<p><i>Awareness creation procession by Komfueku JHS</i></p>
<p>Photo session 3: School gardens established, sponsored by the CSLP; collaboration with GES and DoFA</p>		
		
<p><i>Asonti JHS (cabbage at site)</i></p>	<p><i>Komfueku JHS (maize harvested)</i></p>	<p><i>Adusuazo JHS (preparation of nursery beds)</i></p>

Photo session 4: Artwork/creative drawings; tools supplied by the CSLP; collaboration with GES.

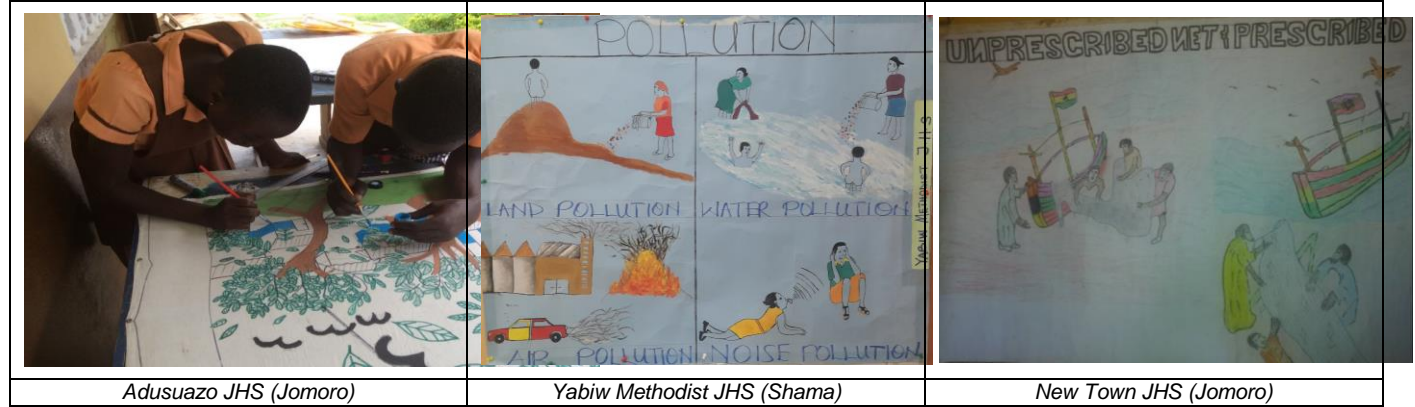


Photo session 5: Tree planting; seedlings supplied by the CSLP; collaboration with GES.

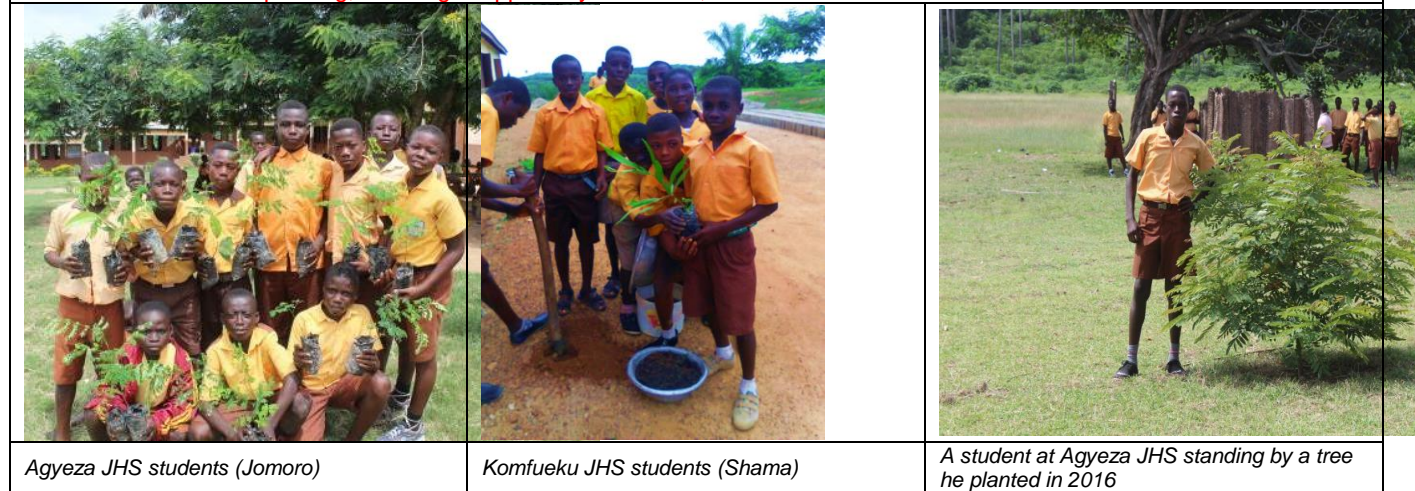


Photo session 6: Trainings for Teachers; sponsored by the CSLP; collaboration with GES, EPA & WD.



Photo session 7: Trainings for students; sponsored by the CSLP, facilitated by WD and supported by GES



Training for Bokro M/A JHS (Nzema East)



Training for MANS JHS at New Nzulezu (Jomoro)



Training at Adubrim JHS (Ellembelle district)

Photo session 8: Quiz competitions; sponsored by the CSLP, supported by GES



Adusuazo JHS vs. Asonti JHS (Jomoro vs. Nzema East)



Adubrim vs Asonti JHS (Ellembelle vs Nzema East)



Asonti JHS (boys vs girls)

Photo session 9: Football competitions; sponsored by the CSLP, supported by GES



Adubrim vs Asonti JHS (Ellembelle vs Nzema East)



Asonti JHS (CCC vs. non-club members)



Adusuazo JHS (CCC vs. non-club members)

Photo session 10: Clean up exercises



Asonti M/A JHS (Nzema East)



Yabiw Methodist JHS (Shama dist.)



Adubrim JHS

Photo session 11: Community sensitization meetings



New Town JHS CCC educating fishermen on the impacts of illegal fishing methods

Photo session 12: Awards; farmers day celebration



Komfueku JHS at 2017 Farmers Day celebration



Asonti M/A JHS at 2015 Farmers Day celebration