



care Adaptation Learning Programme for Africa (ALP)

ALP ANNUAL REPORT

YEAR TWO OF ALP EXTENSION: JANUARY 2016– JULY, 2017

Presented to ALP Coordinating office (Nairobi)

by
ALP Ghana, Country office

Contents

1.0 Introduction	3
2.0 Summary progress against ALP goal, purpose and output indicators and 2017 targets	3
3.0 Purpose	6
3.1 Outcome Indicator 1	6
3.2 Outcome Indicator 2	7
4.0 Output 1:	8
4.1 Indicator 1.1	8
4.2 Indicator 1.2	13
4.3 Indicator 1.3	15
4.3.1 Barriers to the implementation of CAAPs	18
4.3 Output indicator 1.4	19
4.5 ALP Learning on Output 1	21
5.0 Output 2:	23
5.1 Indicator 2.1	23
5.1.1 Extent of PSP, CICs and rain gauges adoption across Ghana reasons, impacts, challenges and ALP role	23
5.1.2 Change in GMET, relations between CIS providers in Ghana and links with adaptation decision making etc.	27
5.2 Indicator 2.2	30
5.2.1 Level of adoption by trainees and other programmes	30
5.2.2 The Northern Ghana interagency platform	33
5.2.3 ALP learning on output 2	34
6.0 Output 3:	36
6.2 Indicator 3.2	39
6.3 Indicator 3.3	40
6.3 ALP learning on output 3	43
6.0 Output 4:	44
7.1 Indicator 4.1	44
7.2 Indicator 4.2	47
7.3 ALP learning on output 4	48
8.0 Summary analysis of ALP Ghana outcomes and impacts	48
9.0 Likelihood of Sustainability of Result	49
9.1 Output one	50
9.2 Output 2	51
9.3 Output three	52

10.0 Challenges/barriers encountered and how they were managed	52
11.0 Analysis of ALP partnerships/relationships, their outcomes and future opportunities.....	54
12.0 List of references from July 2015 to June 2017.....	54
13.0 Event tracker from July 2015 to June 2017	60

1.0 Introduction

The annual report for ALP Ghana covers the period of January 2016 to March 2017, which is the second and final year of the project in the extension phase. This report summarizes and discusses the results obtained during the period under review. The report attempts to analyze the progress of each output by bringing out what changed in the course of ALP work and why, how ALP contributed to the changes, lessons learnt as well challenges/barriers encountered and how they were managed. The report further looks at issues of ALP partnerships and relationships, their outcomes and future opportunities. The project was funded through a 2-year cooperative agreement between CARE Denmark and CARE Ghana. Donors of ALP include DFID, CISU and ADA. The overall goal of the project is to increase capacity of vulnerable households in Sub-Saharan Africa to adapt to climate variability and change.

2.0 Summary progress against ALP goal, purpose and output indicators and 2017 targets

This report presents progress of ALP extension for the period of January to December, 2016 towards achieving the 2016 milestones and 2017 targets. ALP extension is a 2-year cooperative agreement between CARE Denmark and CARE Ghana funded through DFID, CISU and ADA. The overall goal of the program is to increase capacity of vulnerable households in Sub-Saharan Africa to adapt to climate variability and change. Four outputs contribute to this goal; these are; Output 1. Innovation in approaches for strengthening adaptive capacity, resilience, and gender equality, including community access to and use of meaningful climate information. Output 2. Demonstrating and scaling up good practice for integrating CBA into sector specific work, specifically in small holder agriculture, local development planning and disaster risk reduction (DRR) systems. Output 3. Influencing access and accountability of adaptation finance by national governments, CSOs and Africa regional initiatives through support to: direct access; ensuring funds support vulnerable populations and Output 4. Delivering (i) a stronger evidence base of CBA impact and the value for money of an approach which responds flexibly to climatic changes, priorities of vulnerable communities and shifting opportunities and risks, and; (ii) learning opportunities for multiple actors across Africa to learn and reflect on adaptation and its relation to broader resilient development, which together will contribute to achieving climate resilient development and risk management.

Results under P1 are as follows, 5 additional relevant plans and policies in Ghana in addition to the 2014 baseline integrate CBA approaches and are operational namely 1. The Medium Term Agriculture Sector Investment Plan METASIP II, 2. The 2014-17 Medium Term Development Plan (MTDPs) for Garu-Tempane, 3. The 2014-17 Medium Term Development Plan (MTDPs) for East Mamprusi district, 4. The National Climate Change Learning Strategy (NCCLS, 2016-2025), and 5. The Ghana Adaptation Fund project "Increased Resilience to Climate Change in Northern Ghana through the Management of Water Resources and Diversification of Livelihoods," The adopted CBA approaches are PSP and VSLA. Others

are Climate Information Centre (CIC), dry season garden model, CVCA/CBA planning process have received minimal adoption and application by both government institutions and NGOs. The large scale adoption of PSP and VSLA is attributable to their simplicity in application, relevance and provision of immediate solutions to the livelihoods of the users, and the fact that they are very easy to tweak by adopters to meet their specific needs e.g. PSP is being conducted at the community level by MOFA and Trade Aid Integrated. Also, a lot capacity building and practitioner's manuals have been developed for PSP and VSLA which facilitate adoption.

Under P2, the milestone for ALP Ghana by 2016 was 145,000 additional beneficiaries to the baseline and the target for June 2017 is 290,000 climate vulnerable individuals additional to the baseline who are benefiting from CBA approaches and strategies promoted by ALP from both ALP and non-ALP communities and districts, as well as other CBA work in non-ALP African countries. The number of climate vulnerable individuals benefitting from adoption of CBA approaches and strategies promoted by ALP by November 2016 was 666,715 and as at April 2017 ALP carried out a training for CSOs and planning officers within Upper East, Upper West and Northern regions of Ghana which reach a total of 102 participants. Northern and upper East region participants of the AGPs/JPs training is 65 which when added to 666715 gives a new total of 666,780. The participants from Upper West is not captured here because they are part of the number reported in November 2016. The number for direct beneficiaries without their families is 3,617 (M=542 F=3,075) and also direct beneficiaries with their families $6 \times 3,617 = 21,702$ (6 is the average household number in the NKD). ALP Ghana therefore met and exceeded its June 2017 target of 290,000 climate vulnerable individuals benefiting CBA approaches and strategies by 49%. This achievement is attributable to the active role played by local FM radio stations/CICs in disseminating agro-meteorological advisories from PSP sessions to large population of people. Other contributory factors included capacity building provided other NGOs and programs such PATHWAYS, PARED, PAS-G, PRONET, TUDRIDEP, Farm Radio Int., Trade Aid Integrate, RAINS, OXFAM, DAs, MOFA, NADMO, GMET, etc. who are replicating these CBA approaches across the country. Community monitors also played key role in dissemination of CBA approaches and strategies.

Results under output.1 are as follows, 3,617 (M=542 F=3,075) vulnerable individuals (men/women) are directly engaged in climate resilient livelihoods/ adaptation strategies informed by CBA namely VSLA Direct beneficiaries with their families. In 1.2 women hold 67% of the leadership roles within community groups and umbrella organizations and 85% in VSLA groups, Men and women are holding leadership position in VSLAs is 684(M=173, F=511). Men and women occupying leaderships roles in other local umbrella associations and committees such as PTA/SMC, CHC, water committee gives a total of 882(M=292, F=590) with 67% women in leadership positions, DA social protection and leadership programs out of a total of 310 beneficiaries in the district, 139 representing 44.8% are women and 171 representing 55% are men. Under 1.3 six (6) CAAPs developed integrating livelihoods and disaster risk reduction, one for each of the following communities; Kanyini, Duong, Takpo, Zambogu, Nanville and Chaang. Six (6) community's advocacy plans for improved public services and access to resources have been developed and are being implemented in addition to the CAAPS. 3 communities have developed community development plans in addition to CAAPs (Takpo, Chaang and Duong). Under 1.4 Community rain gauge monitoring improved through visual presentation of rainfall data on graphs by rain gauge monitors to make more meaning to farmers., Advisories from PSP sessions are communicated through

the local Community-based climate information centres, small holder farmers are accessing Climate information from service providers namely radio stations and CICs, GMET, ESOKO, IGNITIA, e.g. out of 118 farmers interviewed 98(f=26, m=72) have accessed and used CI.

In output 2 four (4) organizations namely GMet, MOFA, OXFAM, Trade Integrated and one (1) multi-country program namely PATHWAYS are independently promoting PSP

Results in output2.2 include 11 organizations with increased capacity in CBA approaches, of which three are partners in ALP sites:1. The PATHWAYS project has capacity to facilitate PSP as well as support partners and District Assemblies develop and integrate CAAPs into their district plans. 2.GMET at the national and regional level are independently supporting other organizations such Trade Aid Integrated in Bolga to organize PSP 3. The Garu-Tempane DA and department of agriculture conduct CVCA independently and integrate results into their MTDPs and organize annual PSPs, 4. The East Mamprusi DA and department of agriculture organize annual PSPs, 5. The Nadowli-Kaleo DA and department of agriculture has capacity to conduct CVCA and PSP, 6. Centre for the Alleviation of Poverty, the Environment and Child Support (CAPECS) is using CVCA tools in operations, 7. Nandom Deanery integrated Rural Development Program (NANDRIDEP) have developed 9 CAAPS through support of OXFAM, 8. Partnership for Rural development (PRUDA) developed 15 CAAPS in the lambussie-Karni district with support from the PATHWAYS project, 9. Farm Radio International (FRI) is using CVCA tools in conducting formative research to develop radio program content, 10. PRONET is popularizing PSP/PICSA in their operational districts namely Daffiama-Bussie-Issah (DBI) district, 11. Trade Aide integrated has implemented PSP at the community level

Under output 3, two organizations budgets allocations are influenced by CBA approaches: EPA Adaptation Fund Project action plan includes PSP, and MOFA/GASIP project has adaptation component which conducts vulnerability analysis as basis to designing adaptation initiatives. Two ALP Districts have included CBA approaches/DRR in plans and with budgetary allocations: Garu-Tempane MTDP and East Mamprusi MTDP and the 3rd Nadowli-Kaleo District Assembly established 4 dry season vegetable gardens.

1 CSO (ABANTU for development) and its regional based CSO networks are monitoring and tracking the implementation of the Ghana Adaptation fund project as part of the national M&E committee for the Adaptation Fund project, advocating for more allocation of financial resources by the MDAs to climate change adaptation issues. Advocacy for accountable, transparent and effective allocation and use of funds in support of CBA actions resulted in the publicly declared revision of the National Advisory Committee (NAC) operational Manual, to include an additional, CSO representative on gender interests.

Under output 4, ALP and the University of Utrecht are co-generating learning and evidence on possible conflicts and cooperation arising from adaptation intervention under the on-going COCOON project sponsored by DFID. ALP and University of Reading-UK under the BRAVE2 and CCAFS flagship project are co-creating learning around the use of underground water for crop irrigation as well as delivering more impactful climate information service through an innovative approach of integrating PICSA and PSP. Learning from the policy route organized by ALP, the Nadowli-Kaleo District Assembly is establishing 4 model dry season gardens as adaptation learning hubs for youth and women vegetable farmers and 2

campuses namely WA & Nyamkpala in Tamale of University for development studies have submitted an expression interest to collaborate with ALP to institutionalize CBA into their academic curriculum. The overall results are encouraging and show steady and incremental progress towards achieving the program goal and purpose.

3.0 Purpose

Community-based adaptation (CBA) approaches for vulnerable communities incorporated into development policies and programmes in Ghana, Kenya and Niger, and replication ongoing in other countries in Africa.

3.1 Outcome Indicator 1

The milestone for p1 is seven (7) (cumulatively) relevant policies/ plans in climate-sensitive sectors, which integrate CBA across the ALP countries with a target of achieving five relevant plans and policies in ALP countries operational and demonstrating CBA approaches by 2017. In Ghana, tremendous strides have been towards meeting this target. The PSP model obviously has been widely adopted and integrated into key sector programs and plans as result of CBA approaches implemented as described in subsequent chapters under the output levels. These programs and plans which integrate additional CBA approaches beside the 2014 baseline are 1. The Medium Term Agriculture Sector Investment Plan METASIP II, 2. The 2014-17 Medium Term Development Plans (MTDPs) for Garu-Tempene, 3. The National Climate Change Learning Strategy (NCCLS, 2016-2025), 4. The Ghana Adaptation Fund project "Increased Resilience to Climate Change in Northern Ghana through the Management of Water Resources and Diversification of Livelihoods," Also VSLAs, Climate Information Centre(CIC), dry season garden model, CVCA/CBA planning process have received minimal adoption and application by both government institutions and NGOs. The programs and plans are discussed below;

Firstly, the **Medium Term Agriculture Sector Investment Plan METASIP II**, which is the investment plan, in the medium term -2014-2017 for the implementation of the Food and Agriculture Sector Development Policy (FASDEP II) by MOFA, incorporates **Participatory Scenario Planning (PSP)**. To operationalize this plan MOFA developed a national climate-smart agriculture and food security action plan for 2016-2020. Organized a workshop from 4th to 6th of October 2016 of which ALP was invited to support in the development of information materials on CSA to support extension work at the district level. Again, MOFA in collaboration CSIR/CCAFA has established 5 district level CSA platforms to facilitate continuous learning and adoption of CSA practices including PSP. Two (2) additional CSA platforms are being requested by PATHWAYS project to be established in the Lambussie-Karni and Garu-Tempene districts respectively to support CSA activities under the METASIP II. MOFA, through its PSP champions in the Upper West and Greater Accra Regions facilitated PSP refresher training for PSP facilitators in Tamale for the April for 2016 district level PSP workshops in Northern Ghana. Again, PSP has been applied by MOFA in their West Africa Agriculture Productivity Program (WAAPP) in CSA learning sites in 4 regions (Volta, central, Eastern, Brong Ahafo) and 7 districts in the middle belt and southern region.

Secondly, **2014-17 Medium Term Development Plans (MTDPs) for Garu-Tempene Assembly integrates PSP** with budgetary allocation of GHC32,000.00 (\$USD 8,000) for implementation which is adequate for a district level PSP. The East Mamprusi District Assembly equally incorporates PSP into their 2014-17

MTDP. The three ALP districts organized PSP sessions in April 2016 and May 2017 for stakeholders from the district and community levels respectively. Furthermore, the **National Climate Change Learning Strategy (NCCLS, 2016-2025)**, submitted by Government of Ghana (Gog) to the UNFCCC, as part of Article 6 on Climate Education and Learning includes actions to use **the VSLA, Participatory Scenario Planning (PSP) as well as Climate Information Centre(CIC)** to facilitate easy access to agro-met information and early warning system for disaster risk reduction. FAO official who participated in a learning route to Tariganga CIC recommended the CIC model which he coined Village Information Centres (VICs) to MOFA to consider as an effective channel for disseminating CSA information at the community level.

The Ghana **Adaptation Fund project "Increased Resilience to Climate Change in Northern Ghana through the Management of Water Resources and Diversification of Livelihoods,"** implemented by EPA adopts PSP, VSLAs, dry season gardening, annual reflection meeting, and ALP-designed project reflection and learning methodology. Towards achieving this plan of activities two (2) regional stakeholder workshops have been organized in Tamale on the 23rd of May and 12th of October 2016 respectively to fine tune action plans to beneficiary district specificities. Project site communities have been selected by all the 10 project districts with full representation of CSOs in the district selection committees. ALP plans to make a presentation at the 2017 national climate change week on the PSP model in a planned symposium. Also, the project technical advisor for the AF participated the ALP annual reflection meeting in February 2017 to give update to project beneficiaries. Finally, the National Disaster Organization (NADMO) is developing a **national disaster plan for Ghana** with support of the African Risk Capacity (ARC), a specialized agency of the African Union. Ghana will develop a drought and flood model leading to establishing drought and flood insurance policy. In this project, ALP Ghana was invited to share perspectives on CBA work in Northern Ghana and to organize the next meeting in Tamale.

3.2 Outcome Indicator 2

The milestone for ALP Ghana by 2016 was 145,000 beneficiaries additional to the baseline and the target for June 2017 is 290,000 climate vulnerable individuals additional to baseline benefiting from CBA approaches and strategies promoted by ALP both in ALP communities and districts, as well as other CBA work in non-ALP African countries. This target has been achieved and exceeded by 49% by the 2017. The analyses are as follows; by the end of June 2016, ALP Ghana had recorded a total of 333,466 individuals benefiting from adoption of CBA approaches promoted by ALP. These CBA approaches and strategies are, Participatory Scenario Planning (PSP), Climate Vulnerability and Capacity Analysis (CVCA), CBA design and training/CAAPs development and implementation, Community rain gauge model, community Monitors model, VSLA model, Early bulking cassava variety including trials of other marker crops such as cowpea, groundnuts. The centrality of learning in adaptation work cannot be overemphasised. Consequently, a lot of capacity building and learning events were organized for stakeholders within the project districts and beyond. Other NGOs like CAPECs, CDA, PRUDA, PRONET etc. as well as CARE projects such as PATHWAYS also benefited from ALP CBA capacity building activities and replicated those approaches in other non-ALP districts such as Lambussie-Karni district, thus multiplying the impact. (see events tracker tap in the excel log frame report).

Furthermore, ALP Ghana supported the scale up of PSP in 5 new districts, namely Nadowli-Kaleo (NKD), Daffiama-Bussie-Issah (DBI), Jirapa, Nandom and Lambussie-Karni (LKD) districts. Prior to organizing the 2016 district level PSPs, a refresher training was organized for Local NGOs, district agriculture directors, NADMO coordinators, planning officers, GMet staff, and other project staff from CARE Ghana to lead the facilitation of PSP in their various districts. It is important to mention the all the officials from NGOs and government institutions receiving training on PSP are intended to be champions in their organizations leading PSP and providing further capacity building of their colleagues towards sustaining PSP.

During PSP workshops, officials from satellite districts were invited to participate and advisories from the PSP workshops were disseminated through community meetings, churches, mosques and more importantly radio announcements and discussions which benefited the populations of all these districts. Mr Anas Seidu of Radio progress in Wa who participated in the 2016 PSP at Nadowli said about 80% of their listeners are rural farmers and that their radio signals cover seven (7) districts namely, Jirapa, Nadowli-Kaleo, Daffiama-Bussie-Issah, Wa Municipal, Wa West district, Wa East district, and Lawra district (AEE field data, 2016). According to Rita Mumuni, the Assistant M&E officer at the Regional Agriculture Department (RAD) in the Upper West Region and MOFA internal PSP champion said there is an increase in the uptake of climate information by famers to which she thinks PSP is a contributory factor as well as the awareness creation by NGOs and other programs. She also indicated that the environment unit of RAD sensitizes farmers to use CIS in planning their livelihood activities through radio programs held on every Tuesday at Radio Upper West supported by ICRISAT (AEE field data, 2016). Farm radio International through its Climate Information Service (CIS) work with GIZ/ MOFA and 4 radio stations namely; ADARS FM radio in Kintampo and Star FM radio in Atebubu both in the Brong Ahafo region and the Yagbon FM radio at Bole and LOM FM radio at Bunkpurugu-Yonyoo in the Northern region recorded **6,400** beneficiaries. It is significant to note that Farm radio adopted ALP's CVCA tools including hazard mapping, seasonal calendar, gender based focused groups/listener groups to conduct formative research with farmers in 16 communities

towards developing content of climate change programs for radio broadcast at the above radio stations (response from FRI during AEE 2016).

4.0 Output 1: Community based adaptation innovation, including climate information services (CIS) is increasing adaptive capacity, resilience and gender equality for the most vulnerable in target

4.1 Indicator 1.1

of vulnerable individuals (men/women) engaged in climate resilient livelihoods/ adaptation strategies informed by CBA - Used to report against KPI 1 See tab on beneficiary numbers for disaggregated data

Before the start of the ALP extension the Baseline for this indicator as at 2014 was for Ghana direct beneficiaries standing at 4,236, out of the regional total of 9,726 whereas direct with family was 8,944, for Ghana with the regional total of the 3 countries being 28,635.

The Milestone for Ghana for 2016 was to achieve 2,350 as direct beneficiaries and Direct with families as 6,845 in addition to the baseline above.

Status Narrative including brief description and explanation of changes

During community level CVCA conducted in the 6 ALP site communities of the Nadowli-Kaleo district, 117 VSLA groups with total membership of 2,867 (M=405 F=2462) was recorded. Furthermore, an additional 35 new VSLAs with membership of 797 (m=148, w=644) have been mobilized and supported with the VSLA tool kits (see VSLA data base). These group ALP through its boundary partners has worked with directly to achieve the results and challenges reported today. This gives the total CBA direct beneficiaries as 3617 (M=543, F=3075) and direct beneficiaries with their families as using only the number of women participating in VSLA without men which is 3075 to avoid possible doubled counting of men in households. This give a total of 18 450 (6*3,075 is the average household number in the NKD). This indicates that the target for the period has been met beyond the stipulated target. These groups have since participated in community wealth ranking exercise, community awareness creation on climate change, PSP advisories dissemination sessions and access to weather forecast. Some VSLA members are trained as community Monitors. Additionally, some VSLA members have received input support as

The ALP conducted CVCA in the 6 ALP site communities of the Nadowli-Kaleo district to gather baseline data on the communities. This was followed by the CBA design and CAAPs development.

The ALP identified through the CVCA and wealth ranking the needs of the communities to ensure their livelihoods are resilient to the changing climate. This included the need for climate information, information on agriculture inputs including fertilizer, early maturing crop varieties, learning hubs/demonstration gardens, alternative income sources to diversify into other livelihood among others. The project in collaboration with the Nadowli-Kaleo district department of agriculture as a boundary partners together with communities identified and prioritized activities aimed at improving their livelihood resilience (with reference to data from CVCA and marker crop).

This included the introduction of the 12,000 cuttings of the early bulking cassava that 600 farmers (M-500, F-100) were supported with in 2016. In this 2017 cropping season the beneficiaries of the new cassava planting material also produced and shared a minimum of 2600 cassava planting materials to their peer within their communities which included 130 (m- 53, f-77) farmers (secondary beneficiaries). The secondary beneficiaries were identified in community meetings in all ALP communities and each farmer will receive 20 cuttings for replication. This action is ensuring that the cassava crop which was almost in extinction is revamped with the introduction of the new variety. Cassava is a root crop and the roots (tubers) are used as staples for homemade starchy dishes such as fufu, konkote, gari, ampesi and banku. Some women add the leaves to soup to increase the iron base such soups.

In addition, sorghum was identified as a marker crop for the communities in the NKD through the CVCA, thus in consultation with the Department of Agriculture, the 3 months' short variety of sorghum "kapaala" and dorado as compared to the local variety of 4-5 months was introduced and 60 farmers (24 or 40% women) benefited from varietal in 2016. The Department of Agriculture provided hands on training on good agronomic practices as well as monitoring and supervision. In 2017, beneficiaries of the sorghum varietal trials had gathered a total quantity of 500 kilos is to be shared among 30 farmers 30

(m-14, f-16) secondary beneficiaries in each community totalling 130 (m-58, f-72) for the 6 ALP communities. Farmers indicate that produce is used for a local drink "pito" and women prefer to use the "kapaala" variety of sorghum flour for their local dishes "T.Z" to maize, since they claim it is starchier.

Promoting VSLA as a community safety net mechanism for building household resilience to climate change effects, women representing 85% signed up to the methodology. As a result, the women indicated that VSLA has improved their access to savings and credit services. This methodology has helped them to save to meet family basic needs such as food, clothing and shelter. They are now able to reduce the hunger gap from one balanced meal a day for adults to 3 meals per day including breakfast and lunch and dinner. They are also able to invest in their wards education, obtain business capital and health by accessing an easy, stress free and dependable loan facility which previously they were reliant on banks and individuals (which charged high interest rates). Men are now very much interested in participating in the VSLA and are learning to save due to the benefits they have seen women enjoy.

The VSLAs has raised their awareness that the small contributions can result in access to finance in planning for and actually purchase agricultural inputs (since it is only when you know you have access to money that you can plan ahead) and as well source ploughing services much earlier before there is so much demand for them. In order to leverage VSLAs activities to further achieve their financial inclusion, ALP in collaboration with the Nadowli-Kaleo District department of cooperatives facilitated the establishment of cluster level association of VSLAs and a district level VSLA Apex body. A total of 8 VSLA clusters level associations comprising of 89 VSLAs has been formed, these constitute the members of the NKD VSLA Apex body recently established. The department of Cooperative for the Nadowli-Kaleo district participated in the Apex body training and formation and extended their support to the Apex body and cluster level association beyond ALP exit. The cluster level association consist of a number of VSLAs in a community who have representative from the individual VSLAs and executives. Apart from Takpo that have 3 Cluster Level Association (CLA) of VSLAs, all other communities have one cluster association of VSLAs. The CLAs are to ensure smooth running of VSLAs activities in their respective communities such managing of conflicts, setting up of new groups, assisting groups during share-out etc. The ALP trained 51 community monitors and supported 50 community monitors/farmers to participate in a learning visit to the Garu-Tempene district to learn onion and watermelon dry season farming and replicate in the Nadowli-Kaleo district. of this number and other community members trained by the monitors, 76 farmers (m-49 f-17) are currently engaged in it. Farmers are adopting the mud fencing as practised in Garu especially in Duong Community. Three farmers (all men) have also invested in dry season farming equipment in the form of pumping machines (2), watering cans (5) wheel barrow (1), Knapsack sprayer (1), and many inputs to facilitate their activities. Farmers have also cultivated other vegetables namely green pepper, cabbage, lettuce and carrots for the first time. Produce from the gardens are both for sale and for household consumption. Farmers are reporting that this is a source of additional income and they are able to make judicious use of the water points in their communities. They have expressed their readiness to cultivate larger plots of onions next season since many of the domestic animals does not graze on onions. The Department of Agriculture has worked with communities to improve upon soil health and measures are taken to amend the soil structure so as to improve upon the soil quality with both organic and inorganic material. Also the good agronomic

practices learnt from the demonstration gardens/farms such as conservational agriculture is helping maintain good soil health. They are also sensitized and train to sow in rows and on flat lands rather than making mounds (which allows for easy crop management).

The ALP also supported policy makers including the district chief executives of 3 districts of the ALP sites to participate in a learning visit to Garu Tempane District. Learning from this visit has influenced the three dry season models gardens constructed in the Nadowli Kaleo district by the Nadowli District assembly. Two of the constructed model gardens are sited within ALP sites Nanvilli (one for mentally retarded people operated by their guardians) and one in Duong. Each garden has a minimum of 30 people working in it during the dry season. However, farmers cultivated only vegetables like pepper, tomatoes etc. in these models gardens. The learning visit had also influenced EPA which is a National Implementing Entity of the Adaptation Fund and the Ministry of Finance who are the national designated Authority (NDA) to include the constructions and promotion of dry season farming in the Upper west region of Ghana.

Dry season gardening, more especially the cultivation of onions and watermelon has been enhanced in the NKD through the efforts of ALP. Communities like Takpo, Duong, Zambogu, Kanyini and Chaang started the cultivation of onions. Chaang, and Zambogu had some difficulties as their farms were lost to Fulani cattle and bush fires respectively. Farmers in Takpo and Duong are harvesting and selling their produce at local markets. Community members are investing in irrigation inputs to enhance their operations. DA through the local government Forum is also supporting in this regard by providing irrigation infrastructure in 3 communities. Women are not left out from Dry season gardening even though there are challenges. Three women each from Takpo and Duong have cultivated onions in their gardens. The number of women is not encouraging; partly this is because women are constraint when it comes to their ability to fence their gardens. However, in the model gardens established by the District Assembly in Nanvilli and Duong, women form the majority of beneficiaries but most of these women planted beans and pumpkin.

Dry season Small scale farming through irrigation raises the period of days that small holder farmers have farm based employment. Involving in irrigation farming during dry seasons has increased such farmers' period of employment within a year from 4 months to 9 months' maximum. This means gradually such farmers can have all year round employment through crop farming and this has the potential of reducing unemployment, increasing on farm labour for poor households, reducing seasonal migrations, reducing food insecurity and increasing household income which in the long run enhances local economic development.

Admittedly, though it is difficult to track more explicit and direct changes over the past one year, one major change in livelihood of the people in the adoption of new crops varieties for the 2016 farming season relative to the 2015 farming season. Many farmers have diversified their crop varieties in order to spread the risk of crop failures. Others also cultivated new crops varieties on the basis of self-experimentation. During the PSP, some new varieties of these crops were introduced to farmers which were mostly early maturing or drought resistant or both. Farmers are now changing their "traditional"

crop varieties which they say are late maturing for these early maturing crop varieties. The adoption and use of these new crop varieties are increasing yields in good proportion after experimentation/trials at the communities. For example, a woman got 10 bags of maize “wang dataa” from her one-acre farm relative to less than 6 bags that she got from her previous maize variety.

To support and promote livestock rearing as a livelihood option for farmers, ALP supported the training of community livestock health workers in 35 communities within the Upper West region. A total of 56 (M=46, W= 10) volunteers were trained on animal husbandry practices and dealing with livestock pest and diseases. Farmers have started providing shelter for their animals, which were left to roam about in the dry season. In Zambogu, 2 farmers are into agri-business in poultry and have purchased chicks and processed poultry feeds. The plan is to rear them for three months before sales. According to them, even in the face of some mortality, they are able to record at least 50% profits after sales. Fifteen women have also started pig rearing in Zambogu and are being supported by community livestock workers sponsored by ALP to be trained by the Nadowli-Kaleo District Department of Agriculture in veterinary services. These trainees are currently providing animal husbandry and veterinary services to their peers within their communities. All the business ideas came out from group discussions during the community visioning exercise facilitated by ALP where they discussed ways of enhancing businesses in the community.

Bee-keeping which was introduced through the capacity building provided by organizations and external actors as an alternative livelihood has seen major improvement. More people have now realized the benefits of bee keeping relative to the hunting of honey from the wild bees. In Chaang, both women and men are constructing more hives to enhance their operations. ALP in collaboration with the Methodist Agriculture project sensitizes and trained community members on beekeeping. They however complained that bush fires and high cost of bee hives and equipment are their major challenges in this business. Bee keepers in Chaang are linking to external buyers as far away as having customers from Accra. They said their honey stock often gets finish before the next harvest due to the quality of their honey. ALP also supported community members in food processing to join a training on soybean and sorghum value addition, proper processing and packaging training organized by PATHWAYS. They learnt that packaging is good for business and they are currently working on how to label their products. All these ideas were identified during the community and livelihood vision development processing that formed part of the ALP CBA design process. The bee keeping venture is a move to increase protection of trees and promoting planting of flowering trees.

VSLAs when used as an adaptation strategy provides an opportunity for communities to save and invest in the future. Community people are able to diversify their livelihoods through the savings they do in the VSLA groups. Improved seeds (early maturing and drought resistant varieties) are also bought and used through the VSLA savings. VSLA groups provides an opportunity for people to meet and discuss issues affecting their livelihoods and share knowledge and best practices through interaction with one another. Climate advisories given after PSP sessions and daily forecast as well as early warning signs are often disseminated using the VSLA as a platform. Daily weather forecast received from GMET is also disseminated in the VSLA meetings. In the East mamprusi district, early bulking cassava and other

improved varieties of crops are distributed through VSLA groups to reach beneficiaries. The VSLA groups assist communities to mobilize financial resources to carry out activities in CAAPs. E.g. repair of boreholes, electrification of communities etc. since resource mobilization is an important part of the CAAP implementation process, communities are using the VSLA as a way of mobilizing resources for CAAP implementation in their respective communities

4.2 Indicator 1.2:

Increased participation by women in community organizations and local planning related to adaptation and climate resilient farming systems.

In all endeavors, the ALP has promoted women participation and inclusion in its implementation. To this end, during the community entry durbars of the 926 participated, 610 were women and 316 being men, during the wealth ranking and CVCA exercise at the community level 139(m-88, f-51) and 673(m-343, f-300) participated respectively were recorded. For the community exits, an estimated total of 802 (M=349, F=453) participated.

As at January 2016, from the CVCA data and analysis, important decisions taken by various committees within the community had the following segregations: Parents & Teachers' Association(PTA)/ School Management Committee(SMC)=77(M-53, F-24), Church committees=38(m-19, f-19), water committees=25(m-13, f-12) and Community Health Committees(CHC)=57(m-34, f-23). This gives an estimate of 66% participation of men against 34% for women in the six new ALP communities in the Nadowli-Kaleo district. Decisions taken by these committees includes, dues to be paid by each household for the rehabilitation of water points like wells, and boreholes, rehabilitation of school buildings, PTA fees, pupil reporting time to school, extra classes for pupils, provision of support such as health volunteers and other support for CHPS Compounds/health centers. The impact of women being part of management committees of community institutions gives the opportunity for them to raise issues pertaining to women and children during meetings. They may not be able to influence the decisions but make participants become aware of such issue, for instance in the school management committee the women make input into the closing and starting times of the school considering the seasons of the year, whether cold or hot.

The ALP strengthen this by supporting the communities to establish new VSLAs in addition to the existing ones and the men and women holding leadership position in VSLAs is 684(M=173, F=511), 2. Men and women occupying leaderships roles in other local umbrella associations and committees such as PTA/SMC, CHC, water committee etc. is 197(M=119, F=78). This gives a total of 882(M=292, F=590) with 67% women in leadership positions. The VSLAs are a source of funds for the family which is especially used to pay wards fees and other bills. In most cases, it is the women in the various HHs who are members of the VSLA and in times of hardship and financial stress, the men call on the women to access loans/credit from their VSLAs and in this they inform women of what the funds will be used for and seek her opinion as well since she is making available the funds. Also, when it comes to HH feeding and farming, the men again call on the women to access loans from these groups to purchase improved seed varieties, fertilizer and other farm inputs. There are also situations where both the husband and wife belong to separate VSLA and when the need comes for them to pool their resources together to

address pressing issues, the women is consulted before decision is taken on how to use the income since she is risking her credit source and contributing as well to addressing the issue. At the community level, VSLA meetings are used as avenues for dissemination of various forms of information including the PSP advisories, community meetings and other announcement and through this, women are able to be aware of pressing issues in the community and they will begin to make their opinions known to the men in the groups (where side discussions are often held) and their husbands at home for consideration in addressing the issue. Aside this, communities are using the VSLAs again as an avenue to mobilize funds for community development and in so doing they need to inform the members of the groups (which is mostly women-over 70%) of the issue at hand and they discuss together the amount that can be paid for by the VSLAs members. Thus as at this reporting period, women hold 67% of the leadership roles within community groups and umbrella organizations with the VSLA. For the Apex and Cluster level, 74.3% of its executive are women.

Women are more involved in farming and doing more than before as they have access to land that they did not have in the past. Thirty-five percent (35%) of women in ALP sites record increased access to additional resources through their participation in community organizations. Women reported that due to their joint participation in CBA processes along with men, men have become more receptive to releasing productive resources including land and breeding stock for women to get involved in farming activities. This they think would empower the women economically to support the needs of the household. Women view farming as a business now rather than a hobby or culture as it was before. They access credit for expanded production of crops and livestock from their VSLAs which increases their income opportunities and reduces the impact of threats and hazards upon lives and livelihood and are calling to the DA to introduce prizes for best small ruminant's farmer during the farmer's day in Ghana. This appeal is as a result of the dominance of men in the rearing of larger ruminants like cows. Women are now able to better recover from hazards than before giving the indication that their capacity to adapt to the vagaries of weather has increased and this has resulted them to go into petty trading and farming on a larger scale. They have savings from VSLA and Apex body which cushions them, they have diversified livelihoods and they can rely on either in times of disaster.

The VSLA groups, have participated in the CVCAs, community wealth ranking exercise, community awareness creation on climate change, PSP advisories dissemination sessions and access to weather forecast. Some VSLA members are also trained as Community Monitors. Additionally, some VSLA members have received input support for sorghum –kapaala, and cassava for multiplication. Women occupy leadership positions in CBOs especially the VSLAs where women form about 75% of the membership and so hold the highest percentage of leadership positions.

The women in these CBOs are the main decision makers as the male leadership are needed to provide record keeping roles in most cases. There is room for improvement in gender balance in leadership and innovation on CBA: 53 community monitors (15 women), sorghum trial 60 farmers (24 women), early bulking Cassava trials 600 (100 women) while the total of men and women participating in local umbrella associations and committees is majority women: 3,805 (M=651, F=3,154) with women participation at 85%. Investment in experimentation and community mobilization activities requires time and some level of risk taking. Working with the VSLA groups is one way in which women can afford

to be involved. The aim is that new innovations such as in this case sorghum and cassava varieties are started with farmers willing to experiment and with the resources to do so. Through the groups, learning on results and sharing of seed and cuttings to all members was done.

The local governance system has made room for appointment of one third of assembly persons for the communities and this opportunity is used to appoint women. Also, the DA social protection and leadership programs out of a total of 310 beneficiaries in the district, 139 representing 44.8% are women and 171 representing 55% are men. The district Climate Change Science Policy platform which has a 12-member committee has 3 women in representation. At the district level, the livelihood empowerment program which reaches out to 4,489 vulnerable household and individuals, 80% are females. The department of agriculture with its interventions on agriculture target 40% women. DA enables women to participate fairly in local development interventions more especially in the GSOP projects. Women are given a quota in these interventions. The DA through DoA also makes it mandatory for FBOs to have 50% or more of women before they can access their interventions. This was made possible through the collaboration and partnership that ALP works with them as Boundary partners and using such relationships to communicate the need for increased women participation in local organizations planning and activities.

The Apex body has a total executive of 5 (m-3 f-2) with a percentage of 40% being women. Out of the total number 40 executives for the 8 cluster level [40 (m-11, f-29)] and 72.5% percentage being women. At the community level, women in leadership position is good relative to the district level. Women constituted at least 87.5% of the participants at the Apex body meeting and were the influencing force behind the elected executives for the Apex body. All these created the opportunity and saw women making inputs into the CAAPs. Also in the decision making process to determine the secondary beneficiaries of the cassava cuttings and improved seed variety of sorghum, 97 women participated in the meetings in all 6 ALP communities.

Women hold 67% of the leadership roles within community groups and umbrella organizations with the VSLA, Apex and Cluster level having 74.3% of its executive being women.

4.3 Indicator 1.3

Number of adaptation plans developed and implemented by community groups and local government which integrate livelihood strategies and risk management and reflect the aspirations and priorities of women, men and youth

Under the ALP extension, the programme envisioned a cumulative 20 additional adaptation plans (communities, local government development and DRR plans and agriculture sector) underway in ALP sites for the 2016 and a further 10 plans, thus giving a 30 adaptation plans 2015 to 2017 are operational and strengthening adaptive capacity. Cumulative total = 58 plans

In Ghana the ALP from July 2015 to June 2017 supported the 6 new ALP sites in the Nadowli-Kaleo district develop and review their CAAPs. Reviews of CAAPs was also carried out in the 8 old ALP sites in EMD and GTD. In the development of the 6 CAAPs, ALP supported communities identify the vision of the various livelihood groups in the 6 ALP communities which in turn fed into the vision statement for each

of the communities. These visions and CVCA data/analysis for each community were starting point for the development of the CAAPs during the CBA design process. For each community stakeholders including elders, assembly persons, community monitors and members informed the CAAPs development. There were also technical staff including the staff of the Department of Agriculture, NKD community development officers, District planning officer, GMet from the regional level, experienced community workers from various CSO's and the ALP staff were present to support. The CBA design process scrutinized the CVCA analysis, and community visions and the components under the CBA framework (disaster risk reduction, promoting resilient livelihood, building adaptive capacity, addressing the underlining causes of livelihood, creating an enabling environment, understanding and knowledge on climate change) formed the strategies and activities each community identified in their CAAPs. The Approach used was participatory and the role ALP played was to facilitate and for other district and regional level stakeholders to provide technical support where needed. The CAAPs outlined not only the strategies and activities but as well the time frame for implementation, resources needed, lead person, roles/responsibility and support needed and from whom. The CAAPs contains the pressing issues of the community for instance for Kanyini the community has for some time needed motorable roads and bridges constructed to other sections of the community from the central point, this was included in their CAAPs. Again, the Duong community explained that their lost on average 4-8 livestock especially pigs per livestock farmer, as a result they included training of veterinary volunteers, sensitization on proper animal husbandry and community side vaccination into their CAAPs. The need to promote climate smart agriculture was very prominent in the entire planning process as well. These CAAPs upon development were presented to the communities for their scrutiny, by in and as well for them to make input and ensure pertinent issues to the community were captured in the plan including issues of gender. This lead to the finalization of the plan in 2016. As at this period the Nadowli-Kaleo District Assembly had already finalized their District Medium Term Development Plan, however, with the staff of the DA present including the district planning officer and other staff of the decentralized departments, they brought the issues raised in the plans to the knowledge of other officers and this informed for instance the District department of agriculture prioritizing and supporting ALP sites with registration for the government subsidized fertilize,, training of community members on agriculture good practices for groundnut, proper storage among others and training of interested persons as community livestock workers.

For the year 2017, all MMDAs are developing their MTDPs, as a result, ALP took the opportunity to review 6 CAAPs in its ALP sites with the understanding that some of the strategies and activities may have been implemented under the previous CAAPs which included support the formation of VSLAs and VSLA tool kits as stated in Takpo, the community among other ALP communities identified the need to address the malice of bush fires and as a result the ALP facilitated the chiefs of the traditional council of Nadowli and Kaleo to organize several anti-bush fire campaign since September 2016 at community, district and regional level on identification of the causes and effects of bush fires for each community and as well the actions to be taken to address this canker. These series of meetings and planning lead to by-laws being proposed to the district for enactment, gazette and the release of a communique to the general public through the written, audio and visual media in Nadowli and Wa township which has coverage over the entire region and nation as a whole. Other activities in the plan identified sensitizing and training of community/farmers on dry season gardening among others. This on withstanding issues

were still pending and need address and these were included in the reviewed CAAPs. Post the reviewed CAAPs and finalization, the communities were supported by ALP to present the CAAPs to the NKD for integration into the DMTDPs. During this presentation the NKDA and its decentralized departments, community members and assembly person participated and took turns to present and explained the various strategies and activities captured in their CAAPs including how they were arrived at to all present. The communities also took the opportunity to advocate to the DA and other stakeholders present to integrate the plans into the DMTDPs and as well support and where needed lead the implementation of the CAAPs. ALP also took the opportunity to train 29 community Assembly members on the development of CAAPs and this the DPO have mentioned based on the content of the individual Community Action Plans developed by the communities, they have noticed some influence with most calling for climate smart agriculture activities.

Moving forward, the ALP understood the need to not just support communities develop their CAAPs but to equip them with the needed skills to take up the development issues, seek for funding and advocate for its implementation. As a result, the ALP through district stakeholders whose capacity was built in advocacy in a ToT were supported to build the capacity of community stakeholders including elders, community monitors, members of VSLAs, SMEs and other community committees in advocacy. Per this training selected community members constituted a community advocacy committee and a community advocacy plan (CAP) was developed for each of the 6 ALP communities in the NKD. The plan outlined the advocacy issues, for instance in Zambogu, the community identified the need to advocacy for the promotion of girl child education and alcoholism and Nanville community identified the need for nurses and teachers as advocacy issues for the community.

ALP under this extension period also support the MAC-P component of PATHWAYS in the CBA design training for the development of their CAAPs for 30 communities 15 each in the Lambussie and Garu-Tempene Districts. This followed the CVCA training ALP facilitated for the project in August 2015 for their partner staff, project staff, district stakeholders for their 2 operation district/sites stated above.

Per the achievement on dry season gardening, 3 communities carried out dry season gardening on watermelon and onions as a learning which they took up on a wider scale in the 2017. These 3 communities are part of the AF project in the district and potential to benefit from bigger irrigation schemes due to their interest and demand for support for dry season activities through DoA. As part of their plans community indicated they had increase access to climate resilient crop varieties and this started with the 2 boundary partners DoA and the DA providing facilitating roles for lead farmers to take up trials on climate smart maize, soybean and sorghum varieties.

NADMO have trained its officers in the district on DRR and tasked them to form and train DRR teams in the communities which included the 6 ALP communities. Activities of these DRR teams are incorporated into their CAAPS. Communities have taken up the implementation of their plans with more advocacies on infrastructure development such road construction for market access which was prominent in Chaang CAAPs and the community finally took up this issue and mobilized their resources to construct the road themselves. Also, extension of electricity to Kanyinguahe, Naville and Takpo as contained in

their respective CAAPs was advocated for and these communities are currently being connected to the national electricity grid. The rehabilitation of CHPS compound at Nanvilli was also captured in their CAAPs and advocated for. The advocacy initiatives by community advocacy committee, assembly persons and ALP prepared the enabling environment in the communities for the achievement of the CAAPs targets and building the community and individual adaptive capacities. In addition, three communities have developed community development plans in addition to CAAPs (Takpo, Chaang and Duong)

Also, the CSA platforms have engaged traditional councils in Kaleo and Nadowli to establish community bye-laws as well embark on anti-bush fire campaigns as captured in the various CAAPs. The Northern Ghana Governance Activity (NGGA) project funded by USAID has expressed interest to work with the CSA platform and the interagency as well provide financial support for their activities for the 5year period of their operations in the Nadowli-Kaleo district.

4.3.1 Barriers to the implementation of CAAPs

Even though CAAPs are prepared by communities and owned by them, there are still some challenges that affect the smooth implementation of the CAAPs at the community level. One major challenge is the failure of communities to realize the cost component of advocacy. Communities find it difficult to raise money to travel to the district level to engage duty bearers on issues confronting them. The cost component is often left to the opinion leaders and community monitors who champion the advocacy course in the communities. This is mainly due to the fact that after several contributions made by communities to address specific issues, the issues end up not being addressed. Community people tend to lose interest in the process because community monitors and other opinion leaders are not able to sustain the interest of the communities in the advocacy process.

Lack of cooperation among some community leadership e.g. assembly person and chiefs due to local politics is also a major challenge in the implementation of the CAAPs process. This often led to petty quarrels over where a project should be sited. A community reported that the siting of a borehole caused problems in the community due to disagreements from the chief and assembly member over where the borehole should be sited. Lack of skills to market CAAPs is another barrier to the implementation of the CAAPs in the communities. Communities often engage the District Assembly and its decentralized departments on the issues of CAAPs but not considering other development partners and NGOs in the district level. The skill to market the CAAPs is often not there for communities to effectively market their CAAPs to other development partners to get issues on their CAAPs carried out.

Government's commitments to issues that may not be of priority to communities is also a major issue hindering the implementation of CAAPs. There are instances where a community is advocating for one thing and the government for other reasons is concerned with implementing others which is of little or no interest to the community. This often dampens the spirit of the community towards their advocacy issues leading to a situation where a project is abandoned by government after construction.

Learnings from

4.3 Output indicator 1.4

Extent to which operational systems are in place for improved access to and use of climate and other relevant information for deciding livelihood and risk management strategies, particularly by women.

This indicator sort to ensure that community based monitoring and local level information systems/services are operational, linked and supporting decision making in ALP sites and as well reach 60% targeted women and men in ALP sites who report that they have benefited from increased access and use of climate and other information from 2016 to 2017. To achieve this the ALP collaborated with key stakeholders in the climate change and information arena. Under the extension ALP Collaborated with GMet and the district department of agriculture to install 20 rain community gauges in the Nadowli-Kaleo District (NKD) of which 6 are in the ALP sites and train 40 rain gauge monitors including 12 (M=11, W-1) from ALP sites. Data from the rain gauges are submitted to the DoA at the NKD which is then given to GMet. However, the rain gauge monitors indicate that the cost of transporting the data is a challenge to them. This has been put forward to the DoA and they have indicated that their extension/field officers will pick up the date. Discussion have also been held between the GMet for the Upper West region and the DoA for the Nadowli-Kaleo district to collect the rain gauge data for storage and onward submission to GMet at the national level. According to farmers, the rain gauge information helps determine the moisture content of the soil to inform farming activities. It also gives vivid information on the quantity of rainfall for a period and this is gradually informing communities of the quantity of rainfall within certain periods of the year. The communities are also using the data from the rain gauge to draw visual graphs representing the rainfall quantity, pattern, periods of dry spell and as well activities carried out under various stages within the season.

Based on the identification for climate information in the CAAPs of the 6 ALP sites, the ALP in collaboration with GMet and MoFA has organized Participatory Scenario Planning ToT for 2016 and 2017 for district level stakeholders including district planning officers, information service department, NAMDO staff, Department of Agriculture, Regional GMet staff, CSOs, Staff of PATHWAYS including OXFAM and their implementing partners, media, among others for the three ALP districts, OXFAM and PATHWAYS where Garu-Tempene district is a clash. These have in turn organized and facilitated PSP sessions independent of ALP. For instance, PATHWAYS collaborated to organized PSP sessions in Lambussie and Garu-Tempene districts. Again MoFA organized community level PSP in 5 non-ALP districts and has moved further to include PSP into the Agriculture and Food Security Action Plan to operationalize the National Climate Change Policy and the FASDEP II medium term plan. The ministry has also constituted PSP team which comprises of different stakeholders and plans are in place for the ministry to scale down PSP. Also, they have included PSP into one CSA platforms activities and plan to replicate it into other four upon sourcing funding. The challenge here is in securing budget to finance PSP sessions. Learning from MoFA community level PSP, ALP in 2017 trained in addition to the above listed stakeholders, community members and monitors as trainers and facilitators, so they facilitate the 2017 PSP sessions in their respective communities. This will also solve the issue of the DA indicating that the PSP sessions are good but they expensive, therefore not easy to replicate.

The PSP advisories and forecast for the season are disseminated through community meetings, CICs, local FM radios churches, mosques, VSLA platforms etc. Farmers state that the forecast for the season helps them determine the type of crops to cultivate, for instance, at the 2016 PSP a normal rainfall with a late onset was predicted including dry spells in between the rainy days. As a result of this farmers made the decision to cultivate early maturing and drought resistant crop varieties such as Abontem for maize which requires 80 days and 400 millilitres of water to reach full maturity unlike Sanzal-sima which requires 110 days and 550 millilitres of water to reach full maturity. In the area of innovation, ALP upon learning of PICSA from one of the interagency platform meetings, collaborated with the university of reading, CCAFS and AIMS Ghana to train its staff and district level stakeholders on the PICSA approach which was in turn replicated in the old ALP sites. Upon the implementation of the approach, the ALP in Ghana identified important learnings from the PICSA tools that can be adopted in to PSP, thus the CROP WATER INFORMATION SHEET which farmers/community members showed lots of interest in as it informed their planning and choice of crop to cultivate in a given season depending on the seasonal forecast. It is important to note it is as a result of the integration of this information into the PSP and as well as a showcase and presentation of the various seed varieties with explanation on their maturity days, water requirements and proper planting methods. From this, the farmers decided on the seed variety to cultivate. The Nadowli-Kaleo district community development officer indicates that the daily forecast and seasonal forecast from GMet is 75-80% accurate and community members are taking the initiative to enquire for the schedule for the next PSP session. In addition, GMet are now forecasting base on district level parameters as compared to the initial regional level parameters, thus further localizing the climate information and enhancing accuracy and usable for communities. The radio especially Radio Progress remains to be farmers source of Climate information.

Over the extension period the ALP has introduced one more CIC in DUONG and this provides Climate information, Market information on agricultural inputs and produces and even social announcements to the people of Duong and surrounding communities which include Dujangu, Daffiama, Serekpere, and Owlo. The information from the CIC reaches an estimated number of XXXX people and with the learnings from the old ALP sites, programmes are aired, recorded and replayed at nights and convenient times for the community.

In the ALP's work with GMet both have identified how relevant daily weather forecast can be provided to community members. This was further emphasized in the CAAPs of the 6 ALP communities. Thus, GMet developed a platform where daily weather forecast is disseminated to community members who ALP facilitated the linkage. As a result, during the extension ALP has linked a total of 531 (M=402, F=129) community members to GMet to receive weather forecast. This includes community members, staff and stakeholders of the district assembly and its decentralized departments for the 3 ALP districts as well as MAC-P a component of the PATHWAYS project in the Lambussie district. also, in each of the 152 VSLA ALP is working with in the Nadowli-Kaleo district selected members receives climate information from GMet and disseminate it to other members in their community. The weather forecast is for 24 hours, and it is disseminated through text message, which is at no cost for the recipient. It specifies forecasted weather for the current night, the morning, afternoon and evening of the next day. For instance, on the 17 of May 2017 the weather forecast for Garu-Tempene district read as follows; Tonight: no rain,

Morning: rain, Afternoon: cloudy and evening: no rain. The service also provides early warnings regarding extreme weather conditions, such as storms, heavy rains among others. These alerts farmers indicate helps them plan ahead, it informs their application of fertilizer, weeding, going to the market, performance of household chores, roofing of houses among others. However, it is not only GMet that provides climate information to communities, IGNITIA and ESOKO does same, however, this is at a cost, which organizations such as OXFAM have subsidized for farmers to access. These networks provide other information on inputs and markets. This is an improvement over the base year where the 6 communities' only received climate information from radio stations after news. Two mobile network operators namely MTN and Vodafone have collaborated with climate information service providers to disseminate climate information to smallholder farmers. Access to Climate information from service providers is still low, with radio most popular and then GMET. GMet officials have again provided their contact numbers for climate information users to call them for information and feedback. A Community based monitoring revealed that small holder farmers are accessing Climate information from service providers namely radio stations and CICs, GMET, esoko, ignitia. Out of 118 farmers interviewed 98(f=26, m=72) have accessed and used CI.

A District CSA platform was launched in the NKD, a collaboration between the MoFA, DoA, NKDA and the ALP. It is being hosted by the Nadowli-Kaleo district Administration and chaired by the Department of Agriculture (DoA). It is linked to the national CSA platform and other existing ones in the Jirapa and Lawra districts established by CSIR/CCAFA. These platforms will champion goal 13 of the SDGs and the integration of PSP and other CBA approaches into relevant district and national level plans. ALP supported A district CSA platform planning meeting and the platform has planned to facilitate the dissemination climate information as one its core mandate in ensuring climate change adaptation. The Platform will participate in the ToT PSP workshop and further organise community level PSPs for non-ALP communities.

The limits from the weather information from SMS alerts and forecast was that they turn to be general for an area and did not address individual needs. As a result, the GMet upon getting funding from the CCAFA/CSIR and other launched the ENACTS/GMet map room online platform. This platform ensures that various forms of climate information from dry spells, weather and climate forecast for specific location, rainfall amounts among other can be access on the internet by anyone who understood how to navigate the platform. With ALP participating in the launch and realizing its benefits, the project supported its district, regional and community level stakeholders including planning officers, NADMO, regional GMet staff, MoFA from the regional level, DoA from the districts, community members, ALP staff, PATHWAYS and its partner staff, OXFAM field officers among others to participate in the said training. From this, participants were able to determine the likelihood of dry spells for the upcoming farming season for the year 2017. Additionally, the DoA used the platform to determine the general outlook for the season and plan ahead.

4.5 ALP Learning on Output 1

Under indicator 1.1 it was realized that women dominated VSLAs, though this is good as it empowered women, men were cautious of joining VSLAs, however, ALP sensitized and encouraged them to join

VSLAs, this was especially so in Chang community, were prior to ALP the community had 7 existing VSLAs with a total membership of 144 of which only 7 were men and 137 women, however, upon the entry of ALP into the community, the 3 new VSLAs had a membership of 72 with 14 being men and 58 women. This showed an increase in men participating in VSLAs.

Also, it was realized that in communities where dry season were not prominent, there was the need to introduce them to an environment where it is being practiced from which they can learn and replicate and this led to the learning visit for community monitors and the replication by farmers in the NKD.

For indicator 1.2 it was realized women influence in decision making is not just in the leadership positions they occupy but then in the role they play in the decision making process of selecting leaders as well. Thus, ensure they had a voice in deciding on issues that affects them and as well their leaders. Thus, they may not vote for their fellow women to lead them, but they have a deciding hand in whom leads them and if they choose it to be men then, that is whom they believe will serve them better.

Moreover, we noticed that there was division of labour and the goal is to strengthen and empower them and their role within the value chain of agriculture and other livelihood especially for women and not to over burden them. Therefore, the ALP choose a subtler approach to introduce women into male dominated activities for instance in the introduction of crops which are believed to be cultivated by men like cassava, few women opt to volunteer, however upon noticing that it is a 6-month variety and that the leaves sprout early and thus can be harvested for soup, the women are forth coming to cultivate cassava. Again, the ALP supported 7 food processors which included 5 women to participate in soybean and sorghum value addition training as well as proper handling and packaging, thus they will use to enhance their livelihood and contribution within the value chain.

ALP through a study discovered that VSLA could be a maladaptation especially in situations where the members of the VSLAs do not have a reliable source of income. For instance, the study identified that members of the VSLA were cutting down trees to sell as fuel wood and charcoal for income to contribute into the VSLAs. Thus, adaptation projects and other projects for that matter when using the VSLA approach/model should consider the introduction of environmentally friendly livelihoods which are demand driven (chosen by the beneficiaries) and sustainable. This should look at, improved and alternative processing, packaging and linking them to markets, this we believe will address empowerment as a whole.

For climate information VSLA meetings provide a good platform for the dissemination of climate information at the community. Women do not directly receive climate information due to lack of certain assets such as mobile phones, radio sets and other equipment that make climate information accessible. There is great opportunity for climate information access through the private climate information generating companies e.g. esoko, ignitia etc. and the telecommunication companies such as Vodafone farmers club. The challenge is that farmers cannot meet the cost of delivery of such services, however, that of GMet is free, but the challenge is with staffing to ensure that forecast is down to the community level. From communities in the existing ALP sites where Vodafone and farmer line operate, community members are paying for climate information received by these service providers at cost of **GHC2** per

month is less expensive compared to ESOKO which charges **GHC5** per month per farmer for the SMSs and calls to the station. It was also realized through PICSA, that crop information integration and SARI to provide information on locally improved seeds into PSP was strategic and provided more information for livelihood decision making.

5.0 Output 2: CBA approaches promoted by ALP up-scaled by mainstream organizations and programs, particularly in the agriculture sector, in ALP and other African countries

5.1 Indicator 2.1.

The ALP global target for indicator 2.1 is to have national organizations increased their range and/or coordination of or communication channels for short range to seasonal information and uncertainty in response to community needs (e.g. EWS, farm planning, and community radio) by 2017. Towards achieving this milestone, ALP Ghana, through outcome mapping process selected the Ghana Meteorological services agency (GMET) as boundary partner and built its capacity in CIS models including Participatory Scenario Planning (PSP), collaborated with the MET services to establish community rain gauges in 40 communities, facilitated relations between GMET and private sector organizations such as ESOKO, IGNITIA, farmer line, Farm radio International and local FM radio stations to access climate information and disseminate to climate vulnerable livelihood groups. ALP Ghana further brokered relations between GMET and the Ministry of Agriculture (MOFA) and its decentralized departments at the district level as well as the National Disaster Organization (NADMO) for the uptake of CIS models into their programs. Local NGOs and district Assemblies were also trained on PSP and Participatory Integrated Climate Services for Agriculture (PICSA) to ensure the availability of resource persons for sustained organization of PSP and other CIS.

5.1.1 Extent of PSP, CICs and rain gauges adoption across Ghana reasons, impacts, challenges and ALP role

The ALP climate information service models such as the PSP, CIC and rain gauges are widely adopted by national and local government institutions as well as local NGOs. At the national level, the ALP built the capacity of GMET, MOFA and Environmental Protection Agency (EPA) in the PSP model and they have adopted it. For instance, the Ministry of Agriculture (MOFA) has adopted PSP two (2) officials, who participated in ALP-sponsored PSP training in Nairobi in 2015, are now providing capacity building for other staff of MOFA and GMET through refresher training to facilitate PSP. MOFA for instance organized PSP in their West Africa Agriculture Productivity Program(WAAPP) CSA learning sites in the Ho West, Abura-Asebu-Kwamankese, Tain, and Birim South Districts of the Volta, Central and Eastern Regions respectively. During the October 2016 Annual Evaluation Exercise (AEE) MOFA acknowledged awareness of the relevance of climate and weather information to crop extension service in particular which drives their integration of PSP in their Medium Term Agriculture Sector Investment Plan (METASIP II) for 2014-17. (MOFA @ AEE, 2016). Again according to Kingsley Agyemang a staff of MoFA whom ALP supported to understudy PSP in Kenya and has facilitated at least 2 PSP Training of Trainers (ToT) of ALP (ALP reflection meeting report 2017) indicated that, the WAAPP programme under MOFA have replicated and, organizes PSP but they have further scaled it down to organizing PSP at the community level unlike ALP who does it at the district level. The benefits according to him enhances the farmers pre-planning of farming activities, by securing appropriate seeds such as early maturing crops where the scenario for the

seasonal forecast indicates below normal rainfall. Farmers are also able to take precautionary measures such as mending the roofs of their houses, bonding their farm lands base on the forecast for the season. Farmers he said now have a comprehensive understanding of how climate information/forecast is generated and have built confidence in the local forecast. He also added that a PSP team which comprises of different stakeholders has been constituted by MoFA and plans are in place for the ministry to scale up PSP. The challenge here is in securing budget to finance PSP sessions, however PSP has been included in the FASDEP II medium term plan and plans are in place to include it in the policy of the ministry so as to ensure budgetary allocation for PSP at the district levels.

Furthermore, MOFA asserted that the trainings received on PSP and climate change broaden their understanding on climate change and gave them better appreciation of the relevance of Climate Information. For MOFA, the training was holistic and enhanced their ability to facilitate PSP sessions in ALP and non-ALP Projects and communities. Additionally, ALP makes a lot of follow ups after training to determine the status of implementation and use of the knowledge acquired which really puts beneficiaries of ALP capacity building programs on their toes to achieve results.

Local government institutions including the Nadowli-Kaleo district and Lambussie-Karni districts in the Upper West Region have also adopted PSP. Firstly, GMET independently provided technical support for facilitation of PSP by Trade Aid Integrated, a local NGO at the community level at Nyariga, Vea, Sumburungu, and Yoriga under the Bolgatanga Municipal Assembly in April 2014. Learning from Mr Simon Amoah, the coordinator of the Trade Aid Integrated of the CHANGE project, the community level PSP enable many community members to participate and receive first-hand information. It is facilitated in the local language and the hazards identified at the PSP are easily connected to the livelihoods of the people and advisories are appropriately targeted. These benefits notwithstanding, the community level PSP faced mobilization challenges because it was difficult to get the officials from the district level moving from community to community for PSPs (AEE field data, 2016).

ESOKO and Farm Radio International (FRI) in Ghana, say they continue to receive seasonal and weather forecast from GMET and they attributed that to the brokerage role played by ALP in organizing a national round table in 2014 which brought both public and private sector players in the CI sector together at Dodowa which provided space for all the players. According to the Country Director of Farm Radio International (FRI), 'we receive seasonal forecast at beginning of the crop season, quarterly updates weekly and daily weather forecast through SMS alerts. We have trained 8 radio stations from the 3 Northern regions at the instance of OXFAM on the dissemination of climate information (AEE field data, 2016).

Furthermore, GMET incorporated PSP into the capacity building plan for new staff and on the 24th May, 2016, invited ALP Ghana to train their new staff on PSP as part of their preparations to be deployed to manage the regional offices. It is envisaged that by Introducing PSP to the new senior staff of GMET will facilitate uptake and institutionalization of the model in their operational regions. To forestall the problem of staff attrition at GMET and sustainability of PSP, many younger technical officers are trained as champions within GMET at the head office and the regional offices as well as MOFA officials NADMO,

and District planning officers, who have worked together and established networks to continue supporting one another in the exit of ALP.

During the ALP annual reflection meeting PATHWAYS project reported to have bought 20 more rain gauges for their project communities in the Lambussie-Karni and Garu-Tempene district. PARED has also contacted the ALP National coordinator for information to buy rain gauges for their Climate Resilient Agriculture and Food Systems (CRAFTS) project with sponsorship from OXFAM. From the foregoing, GMet can be clearly seen co-generating climate information with small holder farmers using the rain gauge, and linking with the department of agriculture and NGOs to ensure that climate information generated is relevant and applicable to agriculture extension. It is also important to note that the increasing interest in involving communities in the generating of rain fall data using the rain gauge is attributable to ALP. Since 2012 when this model was introduced in the communities of Garu-Tempene and East Mamprusi districts, it has since caught the attention of adaptation practitioners and adoption is very good. The above successes are not without challenges. Community monitors for instance demand financial assistance from GMET/DoA to travel to the district level to submit recorded rain fall data to the DoA Director for onward submission to the Gmet head office which is not provided. Community monitors do not keep proper records. Field monitoring by Gmet and DoA officials to the rain gauge monitors is poor. In reaction to these challenges, they have been forwarded to GMet and the DoA, but the challenges still remain that GMet lacks adequate finances to pay any additional staff, also it has been agreed that the rain gauge monitors and any other monitor can present the rainfall data to the DoA whenever they visit the district capital, Nadowli.

The Department of Agriculture (DoA) at the district level in 4 district Assemblies namely Garu-Tempene, East Mamprusi and Nadowli-Kaleo and Lambussie-Karni districts have enhanced their capacity to conduct PSP over the years and have led the facilitation of PSP with minimal technical support from ALP. Additionally, the Upper West Regional Agriculture Department reported an observed increase in the uptake of climate information by famers which is attributable to some extent the awareness creation by NGOs and programs like the ALP /PSP. Also MOFA acknowledged that the 2016 seasonal forecast as presented by GMET was accurate and also receive SMS alerts on weather forecast from GMET which is about 85% correct and reliable. This assertion is supported by ESOKO when they indicate that about 90% of CIS request (who are mainly community level farmers) come from the 3 Northern regions (Northern region, Upper West and East regions) which has been a driving factor for ESOKO opening an operations office in Tamale to be closer to its clients. (AEE field data, 2016). Also, organization such as OXFAM and ADVANCE contracted ESOKO and IGNITIA respectively to provide climate, input and market information to their target farmers at a subsidised prise. However, upon the withdrawal of the subsidise by the two organizations mentioned above, some farmers have still remained on the platform for these service.

Mr. Mahummed Issifu of ESOKO says 'in Ghana we piloted the commercialization of climate information service and that seem to fetch more money for esoko. About 90% of the demand for climate information comes from Northern Ghana, and that informs our setting up an operational office in Tamale recently to be closer to our clients such as ADVANCE, CCAFS, MEDA, GIZ, the SADA Millennium Village Project (MVP), and recently the Vodafone farmers' club which is the largest subscriber to our service. These big organizations and programs buy the services from esoko and we deliver the CI to the farmers. Gmet and all other players in the Climate Information (CI) sector have opened up the way for esoko. After the November 11, 2014 Dodowa round table organized by ALP which brought together Gmet and private sector players in the generation and dissemination of CI, Gmet continued to invite esoko to its programs. For instance, the World Meteorological Organization (WMO) sponsored some Gmet programs and esoko was invited to make a presentation. There is even a pending MoU between Gmet and esoko where esoko offers to support Gmet with android phones and to train the field technicians of Gmet to collect rainfall data and send to esoko platform through the android phones functionality for analysis and dissemination through the esoko platform. The total cost of this technology is estimated at \$US45,000.00

It is significant to note that this increasing credibility of GMET's forecast contributes to uptake. MOFA significantly employed the services of local FM radio station to popularize CIS in the Upper West Region of Ghana. The environment unit of the Regional Agriculture Department (RAD) sensitizes farmers to use CIS in planning their livelihood activities through radio programs held on every Tuesday at Radio Upper West supported by ICRISAT. Radio progress says about 80% of their listeners are rural farmers in the seven (7) districts namely, Jirapa, Nadowli-Kaleo, Daffiama-Bussie-Issah, Wa Municipal, Wa West, Wa East, and Lawra districts and therefore during their Wednesdays agriculture program, climate/weather information is discussed.

Anas Seidu, a radio presenter and journalist of Radio progress, a local FM radio station in Wa has this to say; we have to come realize that climate information is as important as the demand for new varieties crops as promoted by MOFA among farmers because farmer needs the climate information to plan their activities. We therefore develop a program which disseminates weather information to farmers. During the PSP workshop at Nadowli we granted Mr. Charles Yorke the Director for research at the GMET Head office in Accra a live interview and he explained the seasonal forecasting process to the general public.

As a result of OXFAM engagement with ALP, it has adopted and promoted PSP and community rain gauge models both in the ended project ELCAP and currently in the new project Climate Resilient Agriculture and Food Systems (CRAFS) through its implementing local NGO partners namely PARED, PAS-G, PRONET and Nandom Deanery integrated Rural Development Program (NANDRIDEP) in the Northern, Upper East and Upper West respectively OXFAM consistently since 2013 sponsored community members from their project sites to attend PSP organized by ALP. PRONET for instance sponsored 5 community members from the Daffiama-Bussie-Issah (DBI) district where they are implementing a Climate Resilient Agriculture and Food Systems (CRAFS) project in partnership with OXFAM to

participate in the 2016 district level PSP at Nadowli-Kaleo district. According the PRONET, Farmers in the CRAFS project communities DBI are connected to GMET daily weather forecast and weekly weather updates through SMS alerts. PRONET has a budget line for PICSA/PSP and is currently reaching out to a population of about 3000 in the 5 project communities. PRONET observed a growing awareness and interest in the use of climate information by farmers. The training of farmers on PICSA and the PSPs sessions are contributing significantly to creating awareness on the value of CIS (AEE Field data, PRONET North, 2016). PARED, NANDRIDEP and PAS-G through the ELCAP and CRAFS projects sponsored by OXFAM are implementing PSP in their project communities. PARED for instance is buying rain gauges to install in CRAFS project communities. The project also adopted the ALP CVCA tools which together with their partners PARED (who facilitated CVCA data collection in ALP phase one in the EMD) facilitated in collecting baseline data in the new CRAFS communities in EMD and other project sites.

PATHWAYS, a multi-country program implemented by CARE in Ghana, Kenya, Mali, India Malawi and Ethiopia has adopted and promoted ALP CBA approaches including PSP and the community rain gauge model. The project sponsored 10 of its project and partner staff in both the 2016 and 2017 ToT on PSP for facilitators. The project then moved on to organized PSP for both years on the crop season in the Lambussie-Karni and Garu-Tempene districts. The project has also procured 20 rain gauges for installation in the communities. These achievements are attributable to the capacity building and technical advices PATHWAYS receive from ALP on the CIS models.

The Environmental Protection Agency (EPA) is implementing the Ghana Adaptation Fund project "Increased Resilience to Climate Change in Northern Ghana through the Management of Water Resources and Diversification of Livelihoods" in the 3 Northern regions of Ghana where the ALP community sites are located. The project has also adopted PSP with budgets lines allocated for implementation. This adoption is influenced by a number of platforms participated by the project technical advisor where the PSP is presented by ALP. One of such platforms is the ALP stakeholders' reflection meetings where the benefits and successes of PSP are discussed by stakeholders.

From the going, it is clear that national organizations namely GMET, MOFA, EPA, OXFAM, ESOKO, FRI and programs such as PATHWAYS have largely promoted and operationalized CIS in Ghana.

These were achieved through the facilitation of ALP using various approaches including the radio and CICs for information dissemination, working through community monitors, building capacity of boundary partners through joint planning and implementing project activities, providing training on the CIS models such as PSP, learning from other projects and co-creating knowledge for instance the integration of PICSA from the University of Reading and PSP., project reflection meetings and learning visits.

5.1.2 Change in GMET, relations between CIS providers in Ghana and links with adaptation decision making etc.

Gmet has recorded significant change in many ways. GMet provided 40 rain gauges and trained 80 rain gauge monitors to manage the gauges at local communities including the 6 ALP sites in the NKD. GMet is organizing joint monitoring visits with DoA to the rain gauge communities during the rainy season to provide onsite support to the monitors. The impact of GMet work on the community rain gauges has

witness replication of the model other organizations such PARED and CARE PATHWAYS project in other non-ALP communities. Farmers/monitors are now able to determine the number of rainy days and rain fall amounts using the rain gauge. Some community monitors in the existing ALP communities said they are beginning to see trends in the yearly accumulated rainfall data and can make their prediction based on those trends.

GMet is working effectively with district Assembly and MOFA in organizing annual district level PSPs and climate information dissemination with farmers and other stakeholders in both the old and new ALP sites in EMD, GTD and NKD. These are also witnessed in the districts in which PATHWAYS and OXFAM work including Nandom, Daffiama-Bussie-Issah (DBI), Lambussie and CHANGE a project implemented by CCFC by the partner Tudridep in the Sisaala East District. Thus totalling 18 districts. The Agency now releases seasonal forecast timely to facilitate the organization of district level PSPs. This is being buttressed by the Nadowli-Kaleo district coordinator for NADMO and testimonies from community members in their community disaster prevention effort. GMet deploys staff from the national and regional offices to travel to the districts to support PSPs. A case in point was the 2016 PSPs where GMet officials were sent by the director to 4district in Northern Ghana and one in the Volta Region under the WAAPP project implemented by MoFA. These districts included Nadowli-Kaleo, Lambussie-Karni, Garu-Tempene, East Mamprusi and Ho West. to support PSP workshop. This act does not only build the capacity of the staff

GMet is collaborating with radio stations and NGOs such CFTC, CARE, GIZ, BRAVEII and AIMS/ University of Reading etc. in the packaging and disseminating CI to users. They are for instance supplying weather forecast to Farm Radio International, ESOKO, and farmer line for disseminating to farmers. GMet uses local FM radio stations and text messaging as channel for CI dissemination. A community member of Zambogu said they have access to CI through text messages and radio from GMet and Esoko. The M&E Assistant of the Regional Agriculture Department (RAD) in the Upper West Region-Wa also confirms that she receives SMS alerts from GMET which is about 85% correct and reliable. GMet provides Regional Agriculture Departments with seasonal forecast, they attend MOFA pre-season meeting and provide seasonal/weather briefing to MOFA. The impact of GMet's new relations with MOFA and farmers results in increasing demand for information/weather forecast by farmers to support their farming decisions. This demand is noticed by MoFA as a result of their constant engagement with the farmers who they report after community members participation in PSP, access to CI from the dissemination of PSP advisories and SMS alerts on CI which farmers disseminate to others. Farmers and MoFA report the CI is 85% accurate and they disseminate it to other farmers and as a result of their accuracy, farmers use it to inform their livelihood decisions such as fertilizer application, weeding, harvesting. As a result, more farmers who are not on the platform are requesting to be on the platform. This has enhanced farmer's relationship with MoFA/DoA and as well the credibility of MoFA/DoA advice to farmers as a result many farmers now wait for advice from the agriculture extension to start their planting. The crop extension officer has integrated the utilization of climate information into the production of rice under the Rice Sector Support Program (RSSP) in the Upper West Region. Radio stations in the Upper West region such as Radio progress and Radio Upper West are disseminating PSP advisories and weather forecast to farmers as shared with them by GMet. The improved services of GMet in adaptation decision making for that matter contribute in building adaptive capacities. This is because farmers receive CI including

warning of extreme weathers on the daily basis and as a result they plan their activities accordingly. From the PSP they decide the crop varieties to cultivate, for instance when farmers receive PSP forecast for the season, in the case of a below normal rainfall prediction, then farmers decide to cultivate in valleys where soil moisture will be conserved for seeds sown in situations where periods between rainy days/dry spells are long. Farmers will also opt to cultivate early maturing/drought resistant crop varieties like “wang-daata” a maize variety that takes 90 days to mature and requires 450mm of water to reach full maturity unlike the other maize variety that requires 110 days and 550mm of water to reach full maturity. However, in the case where above normal rainfall is predicted then farmers opt for the later maize variety and as well cultivate other water loving crops like rice among others. There are however some challenges relating to the CI work which is centralized in nature as a result of weak and inadequate technical capacities at the GMet regional offices as well as logistical constraints.

GMET is trained on PSP and has since adopted and promoted it at scale at national regional and community levels. Officials of Gmet at the national and regional level are supporting other organizations with their technical expertise to organize PSP. The demand for climate information resulting from PSP has made GMet to conduct a survey to assess the effectiveness of the daily weather forecast disseminated to users. Most of the respondents called for the scale down of the daily forecast from regional parameters to district level climate parameters, consequently the daily weather forecast being scaled down to district level parameters. Reporting this at the ALP annual reflection meeting, the GMet official said this can further be scaled down to the community level or location specific forecast. The challenge however, is limited GMet staff, since it is only one staff at the national office that performs the analysis and dissemination of the daily forecast. The ENACTS/GMet map room is also a platform for sourcing location specific climate and weather information, this was added at the ENACTS/GMet map room training that ALP collaborated with GMet to organize and train community, district and regional level stakeholders on how to access and utilize the platform.

Again learning from the adaptation strategies introduced by ALP, such as the community rain gauges, PARED during the ALP 2017 annual reflection meeting stated that they have adopted it and replicated the in ELCAP communities and now in the CRAFS communities in the East Mamprusi, Garu-Tempane, Daffiama-Bussie-Issah and Nandom districts in the Northern, Upper East and Upper West Regions of Ghana respectively. Some weaknesses observed about rain gage model have to do with accuracy in data recorded by the monitors, lack of urgency to analyse the rainfall data and provide feedback to the monitors by GMet. Other challenges are the capacity to sustain the increasing demand for climate information in absence of ALP; poor staffing in GMet inhibits location/community specific forecasting. Under the CRAFS project therefore PARED is installing a localized weather station with the aim to addressing some of the above mentioned challenges.

PRONET North participated in PSP in 2016 and 2017 organized by ALP as well being trained ALP CBA design and planning workshop. PRONET further participated in the Climate Smart Agriculture platform launch by ALP in the Nadowli-Kaleo district. PRONET sponsored 5 community members from the Daffiama-Bussie-Issah (DBI) district where PRONET is implementing a Climate Resilient Agriculture and Food Systems (CRAFS) project in partnership with OXFAM to participate in the 2016 district level PSP at Nadowli-Kaleo district. According the PRONET Farmers in the CRAFS project communities in the DBI are

connected to GMET daily weather forecast and weekly weather updates through SMS alerts. PRONET has a budget line for PICSA/PSP and is currently reaching out to a population of about 3000 in the 5 project communities. PRONET observed a growing awareness and interest in the use of climate information by farmers. The training of farmers on PICSA and the PSPs is contributing significantly to creating awareness on the value of CIS (AEE Field data, PRONET North, 2016). PRONET is also popularizing PSP/PICSA in their operational districts namely Daffiama-Bussie-Issah (DBI) district

Furthermore, ALP Ghana has learned from the University of Reading the PICSA model which is being implemented under their CCAFS flagship project in partnership with OXFAM, Gmet, World agro-forestry centre, and AIMS. Under the PICSA model, ALP has learned the importance of crop budgeting for small holder farmer decision making process, historical data to weather forecasting as well as crop water requirement developed by SARI and integrated into PICSA. These lessons have resulted in the integration of the PSP and PICSA which makes climate information service delivery to farmers more meaningful. ALP has also learned from Farm Radio International in the in CI dissemination. Even though the CIC model was initiated by ALP, the installation and development of the radio content was carried out by Farm radio which provided a learning opportunity for ALP as well. ALP, ESOKO and Gmet continue to learn from one other on community rain gauge as an effective and participatory strategy of involving small holder farmers in the generating and interpreting climate information

5.2 Indicator 2.2

5.2.1 Level of adoption by trainees and other programmes – what is adopted by who, where, scale? Reasons, impacts, challenges and ALP role

Ten (10) organizations have increased their capacity in CBA approaches and scale out at various levels as a result of their engagement and encounters with ALP from capacity building workshops, direct involvement in the implementation of ALP activities to benefiting from ALP activity implementations. At a recent reflection meeting in Tamale, PARED one of ALP implementing partners from 2010-2015 said, that they adopted and expanded the VSLA approach and have expanded the district APEX body of VSLA groups to include non-ALP VSLAs from ELCAP and CRAFS communities under OXFAM and PROMISE project communities under CARE International which has closed out. These groups now enjoy a broader base of accessing loans from the district Apex body and receive technical support from the executives who are able to address concerns and as well as identify non-functional and new groups and train on the VSLA methodology / a fresher. Some staff of PARED were trained on the CVCA methodology and they in turn trained their field staff on the methodology replicated in data collection in the ELCAP and CRAFS CVCA data collection exercise.

The Garu-Tempene and East Mamprusi Department of Agriculture (DoA) adopts CVCA, PSP, VSLA, community monitors model, and dry season gardening. The DoA works with community monitors as the complementary staff in communities as agriculture extension officer to farmer ratio in Ghana is about 1:1,500. The monitors support the district extension officers by reporting observed crop and animal diseases in the communities, submit rain gauge data to the agriculture district office, support DoA in

agriculture demonstration farms. PSP helps farmers to plan their farming activities in a more resilient way towards avoiding agriculture losses. The DoA are using VSLAs for information dissemination on agriculture extension and capacity building for women engaging agriculture. In terms of impact, officials of the Department of Agriculture (DoA) contributing at the ALP stakeholders' annual reflection meeting indicated ALP has built their staff capacity in climate change and adaptation which enhances their knowledge and influences the quality of advisories given by DoA officers to farmers. For instance, due to their participation in the learning visit to the dry season model garden, the DoA has promoted this model and can now practically relate to how farmers with small water resource are still engaged in dry season farming. The capacity building activities of ALP have helped in further understanding of Climate Change terminologies such as coping strategies that are not sustainable and adaptation strategies which build the adaptive capacity of the vulnerable. This knowledge is relevant in guiding farmers in the planning of adaptation interventions which not maladaptive.

The Centre for Alleviation of Poverty, the Environment and Child Support (CAPECS) was trained in CVCA, CBA design and planning process and PSP during the 2016 and 2017 ToT training on PSP organized by ALP. CAPECS have introduced backyard dry season gardening in the livelihood project called Greater Rural Opportunity for Women (GROW) in the Upper West region of Ghana where learning from the CVCA/CBA training and design workshops have been replicated. They have also introduced early maturing varieties of soya beans (Janguma and Afayak) to over 2000 women farmers working in 57 communities in the Wa West district in the Upper West Region. CAPECS have formed 131 VSLAs mainly women with membership from 20-30 and used these VSLAs as vehicle for introducing other adaptation and livelihood initiatives namely soya production, conservation agriculture notably composting and zero tillage technology, consequently mechanized traction is on the decline in the Wa West district. CAPECS have linked 57 project communities to the ESOKO weather information platform free of charge sponsored by USAID. Speaking to the ALP National Coordinator during the 2016 AEE, Rutilus, a CAPECS project officer indicated the gender tools learned under CVCA have been very helpful to CAPECS especially the gender tools relating to access and control of productive resources. It helped them to better target their support for women who are their project target beneficiary. Clearly, there is convergence of interest of CAPECS with ALP CBA approaches which drives the rapid adoption and scale out at the community level.

The Nandom Deanery integrated Rural Development Program (NANDRIDEP) through the facilitation and training by OXFAM developed and implemented CAAPS in 9 communities in the Nandom district of Upper West Region. NANDRIDEP further facilitated the development of DRR plans, and district food security action plan applying the participatory approaches of ALP. It is important to note that both OXFAM and its partner NANDRIDEP got their initial orientation on CBA process from ALP Ghana for the implementation of their ELCAP project. These CBA approaches were available for OXFAM and at the time ELCAP was launched whose objectives and strategies were similar to ALP. It was there convenience for to adopt the ALP CBA approaches rather than re-inventing the wheel. One may also speculate that OXFAM at the time of ELCAP did not have any manual on adaption planning and therefore had no choice but to adopt the ALP CBA approaches and strategies. This is buttressed by the launch of their adaptation

planning manual called VRA which is not technical different from CARE CVCA manual and training workshop organized for stakeholders at which ALP Ghana was invited.

Community Development Alliance (CDA) have adopted the CVCA tools and CAAP process and applied them in the implementation a WASH project funded by UNICEF in 6 districts namely Nadowli-Kaleo, Wa East, Wa West, Lambussie Karni, Daffiama-Bussie-Issah, and Sissala-West districts in the Upper West Region where they adopted the CAAP process and tweaked it suit their Community Led Total Sanitation (CLTS) methodology. PRA tools such as transect walk, seasonal calendar, community resource map, gender matrix were used to engage with the community members leading to the development and implementation of CAPs towards achieving Open Defecation Free (ODF) status in the districts. The gender tool learned in ALP helped CDA to understand challenges faced by men and women in the communities with regard to Open Defecation (OD) and design activities appropriately. With their knowledge of the CBA design process, CDA was able to advise UNDP/EPA to conduct feasibility analysis of proposed adaptation initiatives under the Adaptation Fund aimed at preserving the water infrastructures in the project districts.

Farm Radio International (FRI) adopted the CVCA tools to carry out a contract awarded by GIZ/MOFA on Climate Information Service (CIS) delivery using four (4) radio stations; namely ADARS FM radio in Kintampo, and Star FM radio in Atebubu both in the Brong Ahafo region and Yagbon FM radio at Bole and LOM FM radio at Bunkpurugu-Yonyoo in the Northern region. The CVCA tools were used to conduct formative research to develop radio program content for OXFAM and its implementing partners.

The PATHWAYS project has adopted CVCA/CBA design planning process, CAAPs, PSP, rain gauge models and dry season gardening. The program has acquired rain gauges for 20 communities. These are implemented in the Lambussie-Karni and Garu-Tempene communities. ALP Ghana has trained the Pathways Project Partnership for Rural development (PRUDA) to develop 15 CAAPS in the lambussie-Karni district and additional 15 communities in the Garu- tempene district to develop their CAAPs.

In sum thirteen (13) additional organizations and programs have increased capacity in CBA approaches. These includes 4 new programmes under the ALP extension including PATHWAYS MAC-P component implemented in Lambussie-Karni and Garu-Tempene districts, CAPECS, Nadowli-Kaleo District Assembly, OXFAM CRAFS project implemented by PARED, NANDRIDEP, PAS-G, PRONET namely the PATHWAYS project has participated and facilitate PSP as well as support partners and District Assemblies develop and integrate CAAPs into their district plans and facilitated capacity building in advocacy and community advocacy plans development. GMet at the national and regional level is independently supporting other organizations such Trade Aid Integrated in Bolga to organize PSP. The Garu-Tempene and East Mamprusi DAs and the department of agriculture conduct CVCA independently and integrate results into their MTDPs as well as organize annual PSPs. Furthermore, the Nadowli-Kaleo DA and department of agriculture have capacity to organize CVCA and PSP. The Centre for the Alleviation of Poverty, the Environment and Child Support (CAPECS) is using CVCA tools in their operations and the Nandom Deanery integrated Rural Development Program (NANDRIDEP) have developed 9 CAAPS through support of OXFAM. Partnership for Rural development (PRUDA) developed 15 CAAPS in the lambussie-

Karni district with support from the PATHWAYS project Farm Radio International (FRI) is using CVCA tools in conducting formative research for radio content development, PARED adopts CVCA, VSLA, and community rain gauges and up scaling in the East Mamprusi district and finally, TUDRIDEP adopts CVCA which was used to identify a district-wide potential health hazard in the Sissala-East district for redress.

5.2.2 The Northern Ghana interagency platform

The Northern Ghana INGOs inter-agency platform played a critical contributory role in the uptake and replication of CBA approaches in Ghana. As a community of practice, the platform aims at facilitating learning on innovations and good practices developed by peer organizations, promoting the adoption, utilization and replication of program models designed by peer organizations and programs while avoiding unhealthy competition and egoism, monitoring of government climate change policy implementation and contributing to climate change policy discourse. Participating organizations and programs include CARE/ALP, PATHWAYS, OXFAM ibis, Action aid, CRS, ADVANCE, SNV, Tree Aid Ghana, PLAN Ghana, GIZ, WFP, Canadian Feed the Children(CFTC), Winrock Int, esoko, Farm Radio Int, TECHNOSERVE, Global communities/RING etc. Since its inception ALP has shared CBA approaches such as the PSP, CIC, community rain gauge, CVCA methodology and CBA design process with platform members. Subject experts are usually invited to make presentation on topical issues to generate discussions and learning. Officials from SARI, esoko, GMET and Ministry of Finance were for instance invited to make presentations lead discussions on climate smart agriculture, climate information dissemination and generation and climate finance in Ghana. The last 2 meetings of the platform were organized under the themes “Climate information generation and climate smart agriculture” and “understanding the climate finance architecture in Ghana” respectively. This provided an opportunity for the ALP team to learn from other organizations. For instance, we learned esoko services models which include collection and dissemination market price information, providing crop advisory services, weather forecast, sourcing data, monitoring field activities. In fact, we learned that esoko currently collects market price data on 58 commodities from 43 markets across Ghana using well-trained field agents. With regard to the type of information request made to esoko by clients, we learned that 40% of climate-vulnerable farmers called for weather information, 35% agriculture information, 20% price changes, and 5% bids and offer. ALP further learned about the Vodafone farmers which club allows subscribers to access farming and climate information as one of the products of esoko. The inter-agency members also had the opportunity to learn from the Adaptation at Scale in Semi-Arid Regions (ASSAR) project which is a multi-country program in Ghana and Mali in West Africa sub-region and also in East and South Africa under the CARIAA platform. The Ministry of Finance also provided updates on the climate finance architecture in Ghana with emphasis on GCF readiness processes including the need to track climate finance, the development of a Climate Finance Tracking tool, benefits of the Tracking Tool, how the Tool works, national climate finance monitoring system as well shared information on Ghana’s access to African Risk Capacity (ARC).

These inter-organizational and programs learning are very significant as they helped the ALP team to gauge the rate of adoption and replication of the CBA approaches by peer organizations and the local NGO partners. For instance, OXFAM working through NANDRIDEP and PRONET in the Upper West region, PARED in the Northern Region and PAS-G in the Upper West Region are implementing

PSPs/PICSA, community rain gauge model, developing and implementing CAAPs, VSLAs. In fact, on the 14th 16th of February 2017 Oxfam organized a TOT workshop in Wa in the Upper West Region on its Vulnerability and Risk Assessment (VRA) manual of which ALP was invited to build the capacity of its partners and allies on the theoretical and practical use of the VRA tool. It is important to note that in 2012 when OXFAM started implementation of its ELCAP project they consulted ALP Ghana for technical support. The ALP support to OXFAM and her partners in adaptation planning could be a source of inspiration/incentive to produce its own adaptation operational manual which is not technically different from the CARE CVCA manual.

The membership of the inter-agency platform is INGOs who are working through numerous local NGOs located across the districts in the 3 northern regions. These INGOs have influence over the work plans and budgets of their local implementing partners. The October 2016 ALP annual evaluation exercise revealed a lot of NGOs and local government organizations are using the ALP-promoted CBA approaches outside the ALP operational areas in Lambussie Karni, Daffiama-Bussie-Issah (DBI), Nandom and Bole district and municipal. This could be attributed indirectly to the INGO platform capacity building programs which in turn influence the support the INGOs provide for their implementing partners. Again, esoko, as a private sector organization, through its membership of the platform and learning the CIS models promoted by ALP, seized the opportunity to develop CIS packages which are patronized by large organizations such as Agriculture Development and Value Chain Enhancement (ADVANCE) and Mennonite Economic Development Associates (MEDA) who are paying huge sums of money to esoko for the CIS on behalf of small holder farmers in the Upper West Region. In sum therefore, the high adoption rate of CBA approaches in Ghana can partly be attributed to the information sharing and capacity building activities of the inter-agency platform. The platform in 2016 also created the opportunity for organizations to be brought to speed regarding the utilization and management of climate change adaptation funds channeled through the Ministry of Finance (MoF). This was outlined in the presentation made by the MoF who also outlined the progress made by the ministry in ensuring transparency and accountability in the utilization of the Adaptation Funds. The approach that makes the platform viable and sustainable is to limit the membership to only INGOs operating in Northern Ghana. This way, the organization see themselves as peers therefore funding of meetings has never been a change.

5.2.3 ALP learning on output 2

The ALP in the extension period 2015 to 2017 continued to build the capacity of stakeholders including NGO's, CSO's, community, national, district and regional level stakeholders in the CBA approaches. It sought to build the capacity of its identified boundary partners by way of practising and testing the knowledge and supporting implementation of activities on the field so as to determine for themselves the impact of such interventions and ignite the need to adopt such interventions. This included the PSP which GMet and other organizational and project staff have participated and have been trained as facilitators and realized for themselves the relevance for CI. As a result, they have taken up and replicated them in their area of work and this is seen in their participation in the yearly PSP sessions at the district and community level and the increase demand for it from the DoA, communities/farmers and organizations such as OXFAM and MoFA (National level) among others already listed above. Also,

drawing GMet consciousness to farmers and other livelihood groups needs for daily forecast (unearthing the demand) and ALP creating the platform for the needs of the communities for CI to be heard by GMet also gingered the need to provided daily forecast and as well further scale down the weather predicting factors due to constant request from the communities due to the high rate of inaccuracy in the daily predictions and as well a GMet lead initiative to conduct a survey on the impacts, limitations and suggestions for the platform.

In addition, the project in Ghana has been in active contact with stakeholders, providing support were needed and as well involving them in ALP activities and creating their awareness and linkages to other organizations/institutions that may need their support or expertise by brokering and creating the necessary linkages which is key for replication.

It has also been essential to ensure we stakeholders and beneficiaries of ALP interventions were carefully selected. This included organizations and projects who have keen interest in ALP intervention areas and working with the vulnerable for which CBA approaches is of benefit to them and fit into their project plans and purposes. This included OXFAM which is implementing CRAFS project centred around CC, the PATHWAYS MAC-P component which looks that building community resilience in the wake of CC, MoFA and the DoA which works with farmers whose livelihood are directly impacted by CC.

Undertaking follow ups after a training program organized enables the trainer to understand the extent of application of knowledge acquired thus creating opportunity for better understanding and adoption. During stakeholder reflection meeting, participants underscored this learning point remarking that. ALP makes a follow ups after delivering a training program to determine the status of implementation and use of the knowledge acquired and this puts beneficiaries of ALP capacity building programs on their toes to achieve results.

Again, participants at the stakeholders' reflection meeting noted that materials and content of ALP training programs have been explained in simple language and facilitation is often participatory and very practical to everyday life. The level of practicality and understanding gained at a training workshop enhances appreciation of the issues and the trainee decision to adopt. This is clearly true of large extent of adoption of CBA approaches and strategies across Ghana facilitated by ALP

Participatory Scenario Planning is more effective when facilitated at community level as observed by Trade Aid Integrated. It gives opportunity for more men and women to participate as the local language is use in facilitation and advisories are well targeted to the specific community livelihoods. Sharing experiences at ALP reflection meeting Mr Kingsley Agyemang the PSP champion at MOFA who also facilitated community level PSP supported this view and added that farmers now have a comprehensive understanding of how climate information/forecast is generated and have built confidence in the local forecast. This perhaps has been the influencing factor for MOFA's adoption and promotion of PSP. Going forward therefore there is good opportunity to community monitors and district extension officers lead PSP at the community level. These benefits notwithstanding, the community level PSP faced mobilization challenges because it was difficult to get the officials from the district level moving from community to community for PSPs.

The duration of learning and practice enhances understanding and confidence thus influencing the rate of adoption of CBA approaches and strategies. This is particularly demonstrated by PARED which was the local NGO implementing partner for ALP for 5 years. Having acquired knowledge on the various CBA approaches and strategies and put them to practice is now confidently up scaling them without technical support.

The relevance of the CBA approaches and strategies to an existing or new programs and organizations influences the rate of adoption. CAPECS for instance was introduced to the CBA approaches and within a short period they have adopted VSLAs, back yard gardening, a tweaking of the dry season garden model to meet their organizational needs. Also Community Development Alliance (CDA) also adopted the CVCA methodology and tweaked it to suit their UNCEF-sponsored CLTS project. If the CBA approach or strategy responds positively to the organizations' problems the rate of adoption will be high.

The above listed approaches contributed to the adoption and mainstreaming of the CBA approaches into organizational and project plans and activities.

6.0 Output 3: Access, allocation and use of adaptation finance is influenced in support of CBA in ALP countries and regions

6.1 Indicator 3.1

The 2016 milestone for indicator 3.1 was to ensure that knowledge and capacity were built for including CBA approaches in adaptation finance allocations by AF/GCF implementing entities/NDAs and national government budget decision makers for development and DRR while the 2017 target is for inclusion of CBA approaches and direct access in national criteria and implementing guidelines for adaptation finance in Ghana. In short, there has been great progress in strengthening national ownership over the GCF process, and developing guidelines for greater climate financial accountability. As follows, the approaches were included in various policy documents such as the National Climate Change Learning Strategy (NCCLS) and the Medium Term Agricultural Sector Investment Plan (METASIP II), and included in project designs an Adaptation Fund (AF) project, and practice such as training of staff from the Ghana Met office (GMET).

A key means of influence was the ALP Learning Route, organised in June 2016: Key sectors such as the Ministry of Finance which is the National Designated Authority (NDA) for GCF, the Environmental Protection Agency (EPA) which supervises the Ghana Adaptation Fund project and the Ghana Agricultural Sector Investment Program (GASIP) hosted by MOFA, NADMO, GMET, NDPC, FAO etc. participated in the learning route to the ALP site in the Garu-Tempene District organized by ALP with the aim to providing them a practical learning experience on CBA interventions. The Nadowli-Kaleo district Chief Executive, Hon John Bosco Bomansaang, after the learning visit to the Tariganga dry season garden model was motivated to approve budgets for the construction of 4 dry season vegetable gardens in for communities namely Zang, Nanville, Duong and Sankana in the Upper West region. The NCCLS (2016-2025), submitted by Government of Ghana (GoG) to the UNFCCC, as part of Article 6 on Climate Education and Learning includes actions to use the VSLA, Participatory Scenario Planning

(PSP) as well as Climate Information Centre (CIC) methodologies to facilitate easy access to agro-met information and early warning system for disaster risk reduction. This was done through ALP lobbying and technical inputs, including a proposed intervention which was included in the final strategy and plan of implementation.

The Ghana AF project "Increased Resilience to Climate Change in Northern Ghana through the Management of Water Resources and Diversification of Livelihoods," implemented by the Environmental Protection Agency (EPA), together with UNDP, adopts PSP as well as ALP-designed project reflection methodology (community visioning). A plan of activities for 2 regional stakeholder workshops were organized in Tamale on the 23rd of May and 12th of October 2016 respectively to fine tune action plans to beneficiary district specificities. Project site communities have been selected by all the 10 project districts with full representation of CSOs in the district selection committees. GMET has introduced PSP into their training program for new staff.

The MoFA METASIP II (2014-2017) for the implementation of the Food and Agriculture Sector Development Policy (FASDEP II) incorporates PSP. To operationalize the plan MoFA developed a National Climate Smart Agriculture and Food Security Action Plan for 2016-2020 which ALP contributed to through engagements with the FAO Ghana office. For now, MoFA, in collaboration with research institutions (CSIR/CCAFS) has established 5 district level CSA platforms linked to the national CSA platform to facilitate continuous learning and adoption of CSA practices, including PSP. MoFA/FAO coordination of the CSA platforms have been weak and ALP has contributed beyond the influencing the design.

MoFA, through the MoFA PSP Champions in the Upper West and Greater Accra Regions facilitated PSP refresher trainings for PSP facilitators in Tamale for the April season 2016 district level PSP workshops in Northern Ghana. In addition, PSP has been adopted by MoFA in their West Africa Agriculture Productivity Program (WAAPP) in 4 regions (Volta, central, Eastern, Brong Ahafo) and 7 districts in the middle belt and southern part of Ghana. The platforms are envisaged to champion action on SDG13 and the integration of PSP and other CBA approaches into relevant district and national level plans.

NADMO is developing a national disaster plan for Ghana with support of the African Risk Capacity (ARC), a specialized agency of the African Union. Ghana will develop a drought and flood model leading to establishing drought and flood insurance policy in which ALP Ghana has been invited to share on CBA work in Northern Ghana and to organize the next meeting in Tamale.

Participants from national level government institutions and NGOs at the ALP annual reflection in March 2017 indicated that several trainings have been organized for municipal and district assemblies in mainstreaming of CBA. For instance, ABANTU trained the Planning and Gender Desk Officers at the DA on integrating Climate Change initiatives in their budgeting and planning process mainly in the Eastern, Greater Accra regions. The Ministry of Finance trained some institutions including the MMDAs on Climate Change. Furthermore, the NDPC trained all MMDAs on how to integrate CBA into the Medium Term Development Plans (MTDPs). The AF project provided trainings for CSOs and beneficiary district

and partner institutions such as MOFA, Forestry Services Division and traditional authorities in October 2016.

In the realm of climate financing, the process of ensuring country ownership and direct access is well underway. On one hand, the UNDP Readiness programme has provided MoF with the necessary technical support to make significant advances, whereas ALP has played the role of knowledge broker, sharing information and translating often technical information into something of relevance to CSOs: As opposed to the AF, where a project on reducing water stress in northern Ghana started implementation this year, Ghana does not yet enjoy direct access to the GCF, with accreditation to the appointed NIEs (Ecobank and Social Investment Fund) continuously delayed. However, the process is moving ahead. Where ALP has made its greatest contribution in terms of direct access is in bridging the space between the NDA, NIE and civil society but also in tabling the need for Enhanced Direct Access, both through Government-CSO meetings mentioned elsewhere in this report as well as through targeted lobbying of the MoF GCF Secretariat, through involvement of key donors such as UNDP, EU, and the French Embassy and, lastly, through involving in global level discussions such as GCF-CSO list serve and coordination calls which feed directly into the CSO position at the GCF Board meetings.

Most significant change at the national level is Government of Ghana's (GoG) early ratification of the Paris Agreement, in August 2016. This also means that GoG might now be held legally responsible for delivery on the INDC, submitted to the UNFCCC in September 2015. In the INDC, GoG committed to 11 Adaptation Programmes for the period 2020-2030. The programmes are much in line with ALP focus areas, with three programmes on "Agriculture and Food Security," one on "Gender and the Vulnerable," and one on "Water Resources." Adaptation (45% of total INDC cost) is however only prioritized marginally over mitigation (55% of total INDC cost). GoG presented "an indicative figure" (to be revised before 2020) for the cost of meeting the adaptation cost, estimated at USD \$9,81 of which 28.3% are to be mobilized domestically. The targets might be "unrealistic," with no calculations available of how the figures were reached (EU Evaluation Team, October 2016 NREG Final Evaluation debriefing), but gives an indication of the political priority given to adaptation.

According to a May 2016 study commissioned by ALP Ghana ("Analysis of 2016 Budget from Climate Change and Gender Perspective"), Ghana spent a budget of GHS 1,883 million towards "climate relevant" initiatives in the 3 fiscal years' period of 2014-2016. This is woefully inadequate with the National Climate Change Policy requiring what EPA estimates to be 4,127 million annually for implementation, that is, a 6-fold increase over current annual allocation (ODI/ISSER 2015:vi). The study however concludes that "this has not been on a consistent increasing trend. Indeed, no single Ministry has been found to have increased its budgetary allocation for climate change throughout 2014-2017. The best description for the trend is "up and down". Indeed, the trend has been the same with the total budget sizes for the respective years and cumulatively as against the total allocations for climate change." The study also found that "only MoF, MLGRD, MoFA and MESTI mentioned climate change in the budgets within the given period 2014-2016, while no single ministry mentioned climate change in every year of all the three years.". Finally, other significant outcomes include the inclusion of PSP into

the Medium Term Agricultural Sector Investment Plan (METASIP II) and the inclusion of CBA into the National Climate Change Learning Strategy (2016-2025), developed by EPA with significant CARE inputs.

It is pertinent to mention that the climate finance arena in Ghana is not without challenges. Knowledge on Climate finance for instance remains relatively low, with technical expertise resting on a few individuals from MESTI and MoFEP, rather than being institutionalised. Among civil society, levels of knowledge are low too. As part of capacity building efforts, we have with some success included government officials in civil society meetings, such as the INGO Inter-Agency Platform meeting in September 2016 to enhance knowledge sharing.

Our CSO advocacy partner, ABANTU are building the capacity of other CSOs in Mali, Burkina Faso, etc. Recently, they had a learning session where they made inputs into the development of a book on climate financing which includes lessons drawn from their CBA work and CBA advocacy. ABANTU wrote a chapter in the book, which will be reviewed, published and shared with all the relevant stakeholders.

6.2 Indicator 3.2

The global 2016 milestone for the above indicator was to reach 3 CSO networks with mechanisms developed for tracking adaptation finance allocation and flows and analysis of inclusion of CBA approaches in ALP countries and see by 2017 that CSO's tracking of adaptation finance has influenced transparency and accountability of flows to vulnerable people in at least 3 countries.

As opposed to the AF, where a project on reducing water stress in northern Ghana started implementation this year, Ghana does not yet enjoy direct access to the GCF, with accreditation to the appointed NIEs (Ecobank and Social Investment Fund) continuously delayed. However, the process is moving ahead. Where ALP has made its greatest contribution in terms of direct access is in bridging the space between the NDA, NIE and civil society but also in tabling the need for Enhanced Direct Access, both through Government -CSO meetings mentioned elsewhere in this report as well as through targeted lobbying of the MoF GCF Secretariat, through involvement of key donors such as UNDP, EU, and the French Embassy and, lastly, through involving in global level discussions such as GCF-CSO list serve and coordination calls which feed directly into the CSO position at the GCF Board meetings.

To influence transparency and accountability in adaptation finance allocations, ABANTU commissioned a consultant to analyze the Ghana national budget statements from 2014-2016 on the climate change and gender perspective. The report presented a track record of budget allocations and expenditure by key Ministries, Departments and Agencies (MDAs) on climate change adaptation and gender issues at a workshop of CSOs and media is an accountability mechanism for ensuring that Ministries, Departments and Agencies (MDAs) increase their expenditure on adaptation activities. Major sectors such as roads and housing, mining, and trade and industries which have high potential of impacting negatively on the environment with their activities had low budget allocations to addressing climate change issues. Government institutions appear to be becoming more climate insensitive in their budgeting as compared to 2 years ago.

To improve transparency and accountability of climate finance allocations and financial flows, we identified three options for actual *tracking* of climate finances: (1) To track Common District Assembly Fund allocations towards climate action; (2) To track project disbursements by an international donor. (3) To influence the strengthening of the institutional checks and balances with which future projects, whether national or international must comply. As for options 1 and 2, no climate budget codes are not yet in use and can thus far only be used for tracking central government flows of CC resources while as for the third option, disbursements to the only international donor project, the aforementioned AF project was unfortunately delayed. In response, we chose to focus on capacity building of CSO partners rather than an actual tracking exercise. Certainly, ALP facilitated the participation of GACCES members in the AF project “District Monitoring Committees” through which they appear to have had influence over the final AF project implementation plan, including the selection criteria of the project target districts (AEE field data, 2016).

GACCES has engaged directly with the National Advisory Committee (NAC) of the Nationally Designated Authority (NDA) to the GCF. GACCES held a validation workshop on advocacy strategy with other projects/networks at which they shared experiences on advocacy with TI Kenya, who work with ALP in Kenya and host the Kenya finance and governance network. The opportunity which ALP and PACJA work provides for cross country CSO sharing of expertise and knowledge is strengthening CSO to have higher quality action and impact. GACCES advocacy strategy lays out how tracking of adaptation finance will be done using a score card in which district officials will be trained. it will be guided by the Joint Principles for Adaptation (JPAs, introduced for CSO advocacy use by the Southern Voices project) and AGP checklist. A most significant outcome is the publicly declared revision of the NAC Operational Manual, to include an additional, second CSO rep which is to represent gender interests.

Community Development Alliance CDA which is a member of GACCES, participated in the COP 21 organized and shared a debriefing of the Paris Declaration with the Upper West civil society network. They have pushed for the inclusion of some of the declaration into district and regional plans and programs. They are part of the regional level climate policy dialogue platforms mounted by CCAFS and CSIR in Ghana. CDA is a committee and executive member of the Savana Accelerated Development Authority regional working group in Wa and has reported bringing the COP21 agenda on board for discussions during meetings. SADA within Upper West regional is being pushed by the CSO network to renew its development plans to include strategies from the COP21.

6.3 Indicator 3.3

The 2016 milestone for indicator 3.3 was to see CSOs promoting CBA approaches and directly engaging in negotiations at COP21 in Paris and for GCF and AF guidelines and the target for June 2017 is to realize a coordinated and sustained CSO advocacy for meeting adaptation finance commitments that are informed by CBA and direct access principles.

Climate change donor requirements on stakeholder engagements have made Government of Ghana more open towards civil society engagement over climate policy. The various Ministries, Departments

and Agencies, especially MESTI and MoF, have taken significant steps towards meeting CSO demands, such as opening up the appointment of National Implementing Entities for GCF to competitive and transparent process, timely information sharing on the appointed NIEs (Ecobank Ghana Ltd. and Social Investment Fund) and ensuring access upon request to relevant documentation even if the information is yet to be made publicly available. Further steps towards public transparency include the introduction of Ghana Climate Data Hub (climatedatahubgh.com), a public information website, much of the content of which however remains inaccessible, such as the Intended Nationally Determined Contributions (INDC) 2015 baseline, even if gradual improvements are now being made. However, CSOs are still relentless in their demand for even easier accessibility to key documents. The Right to Information Bill is stranded in Parliament but its passing into law would make some of the present confidential documents available. The success can be subscribed partly to the support provided to our CSO partner, ABANTU for Development and Gender Action on Climate Change for Equality and Sustainability (GACCES) network hosted by ABANTU, but most significant has been the strives made by the ALP team to engage more directly with our boundary partners, as well as opening the civil society space by reaching out to other CSOs than only ABANTU and GACCES:

ABANTU for Development is the civil society representative in the Climate Change Steering Committee, as well as member of the Adaptation Fund project implementation committee responsible for overseeing fulfillment of the 2015 INDC adaptation financing commitments as well as representing civil society on the Ghana Adaptation Fund Steering Committee. In other words, ABANTU is well placed to influence government positions and strengthen civil society more widely.

As part of efforts towards reaching out to a broad-based audience at both the national and regional levels, ABANTU organized a pre-COP event in collaboration with the Institute of Environment and Sanitation Studies (IESS) of the University of Ghana and the Media Platform on Environment and Climate Change (MPEC Ghana) and the French Embassy. Participants were drawn from the Ghana-Can network, the media and the academia. Other CSOs networks that were actively present were the members of the Ghana Climate Change Coalition (GCCC), the Ghana chapter of the Pan African Climate Justice Alliance and the GACCES. Critical issues such as the promotion of inclusiveness in terms of adaptation and gender particularly in the INDCs and the takeaways towards the COP 21 were discussed by seasoned researchers and negotiators. Following pre-COP event, ALP Ghana sponsored ABANTU and one of her network members i.e. Community Development Alliance (CDA) to attend COP21 and promote CBA goals to a broad array of audience at the global level using lessons from the Ghanaian contexts on the transformational impacts of CBA approaches at the country level. Lessons on CBA for inclusive development were shared by ABANTU during side events and other bilateral and multilateral platforms during the COP 21. On the other hand, 3 Ghanaian CSOs have now been accredited as observers to the GCF, hereof two GACCES members; Abibiman Foundation and Development Institute, the former being a member of the ABANTU-hosted national PACJA chapter, Ghana Climate Change Coalition, while both are members of the ALP-founded Ghana Climate Adaptation Network (CAN). Development Institute participates actively in GCF Board meetings.

Indeed, ALP CSO advocacy seem to have had strong impact on the national level through participation in said government committees and less so on the local level. Through our partnership with ABANTU for Development, we sought to reach out locally through the constituency of the Gender Action on Climate Change for Environmental Sustainability (GACCES) network, hosted by ABANTU. However, the GACCES constituency is not involved, perhaps also not being sufficiently involved, with ABANTU not having had the sufficient resources to maintain communication with the GACCES member CSOs outside the capital, including those three GACCES members targeted in ALP; Community Development Alliance (CDA), Northern Patriots in Research and Advocacy (NORPRA) and Ghana Developing Communities Association (GDCA). ALP offered its technical expertise with strategic organizational self-assessments and advocacy to help ABANTU in identifying the GACCES capacity gaps, strengthening their strategic planning and building the necessary advocacy capacity. One positive outcome was the development of a 2-year Strategy for Policy Influencing and Capacity Development that targets local engagements with 12 districts (February-May), which is then to feed into recommendations for NDPC to include the best practice “Joint Principles of Adaptation” into the FOAT guidelines. The Joint Principles were developed under the CARE Denmark “Southern Voices on Adaptation II” project that partners with ABANTU and with whom we have sought to complement our activities through close coordination to the advantage of ABANTU. During spring of 2017, ABANTU has provided training to GACCES members in all three regions of northern Ghana, including discussing venues for tracking climate finance and seeking to strategize with network members. In total, ABANTU for development trained a total of 102 district planning officers, CSOs and ALP staff in the Northern, Upper East and Upper West Regions on the Joint Principles for Adaptation and Adaptation Good Practices. This training outlined the principles/checklist and criteria for appraising proposals to ensure they adaptation compliant. This is an achievement in itself but we also acknowledge that the capacity constraints of ABANTU and the weaknesses of GACCES have left much to desire in the partner-driven ALP advocacy in Ghana. In 2016, GACCES formulated an objective to advocate the NDPC to raise % allocation of the Functional Organizational Assessment Tool (FOAT) criteria from 1% to 10% (building on the earlier ALP achievement to include the 1% target in the FOAT), but the objective was clearly too ambitious for GACCES to meet.

ALP responded by engaging directly with boundary partners and helped them to open their doors and broker knowledge with CSO actors, including but not limited to ABANTU. Notably, the ALP team has fostered strong relationships with the most significant CSO platform in Ghana, the Kasa Initiative, and their CC Working Group, notably around work related to the national GCF policy process. During autumn of 2016 and spring of 2017, the ALP team has also led the formal establishment of the SDG13 (Climate Action) Civil Society Platform including early discussions on how to collect data to monitor Government progress on meeting SDG indicator 13.2 on climate finance under the GCF. The work is carried out with the "Kasa Initiative Ghana" CC Working Group which convenes the platform with support from ALP. ABANTU and the GACCES network are members. Activities include drafting/adoption of guiding principles for our work, a member survey on SDG priorities and geographic mapping of membership and then knowledge sharing through our mailing list. In addition, a GCF conference was organised on 17 May in Accra, by CARE with support from BMUB/International Climate Fund, and ALP has played a major part of the conference and contributed by sharing the learning from the past year's work on the Ghana GCF process. With little or nothing yet in writing on the process in Ghana, this work is contributing greatly to

building the understanding among CSOs, let alone Gov' stakeholders, necessary for Ghana to meet its adaptation finance commitments.

To this end ALP Ghana as part of efforts towards reaching out to a broad based audience at both the national and regional levels, organized a pre-COP event in collaboration with ABANTU, the Institute of Environment and Sanitation Studies (IESS) of the University of Ghana and the Media Platform on Environment and Climate Change (MPEC Ghana) and the French Embassy. Participants were drawn from the Ghana CAN network, the media and the academia. Other CSOs networks that were actively present were the members of the Ghana Climate Change Coalition (GCCC), the Ghana chapter of the Pan African Climate Justice Alliance and the Gender Action on Climate Change for Equality and Sustainability (GACCES). Critical issues such as the promotion of inclusiveness in terms of adaptation and gender particularly in the INDCs and the takeaways towards the COP 21 were discussed by seasoned researchers and negotiators. Following the pre-COP event, ALP Ghana sponsored ABANTU and one of her network members i.e. Community Development Alliance (CDA) to attend COP21 and promote CBA goals to a broad array of audience at the global level using lessons from the Ghanaian contexts on the transformational impacts of CBA approaches at the country level. Lessons on CBA for inclusive development were shared by ABANTU during side events and other bilateral and multilateral platforms during the COP 21. Access to global forums is limited. Also Beyond funding for participation to COPs and GCF Board meetings, the lack of sufficient UNFCC observer organizations in COP nominations are reportedly an issue for some CSOs.

6.3 ALP learning on output 3

From inclusive policy advocacy to implementation: The most significant lesson was that, while ALP Ghana had considerable success in influencing climate sensitive policies and programs, the need is now for civil society to start monitoring on the ground policy implementation and tracking the flow and use of climate funds. Most climate-oriented CSOs are strictly advocacy-focused and based in Accra while the well-placed rural CBOs are more focused on service delivery. In this scenario, networks with rural constituencies, such as GACCES could have filled that local-to-national void. However, trust is low in the highly competitive civil society sector and network host organizations often lack the legitimacy and coordination skills.

Adapting advocacy strategy: By Year 2, our advocacy strategy differs from what was planned for. Initially, we had identified weak capacity in GACCES which were outweighed by their influencing potential and our ability to strengthen that capacity. Yet, the Ghanaian civil society sector is highly competitive and cooperation with others met with mistrust. We changed strategy by seeking to foster trust among competing climate policy networks sharing knowledge and involving other CSOs and networks beyond GACCES, based on merits not network affiliation. Through cooperation with other CARE partnerships such as the broad-based Kasa CSO platform and through co-chairing the SDG13 Platform, we contributed significantly to strengthening civil society advocacy on CBA and climate financing and in influencing policy processes with ALP staff contributing more directly than expected to the climate policy work of ABANTU and GACCES which requires substantial technical knowledge.

Increasing space and voice for CSOs engagements with government institutions on CBA advocacy: The various Ministries, Departments and Agencies (MDAs), especially MESTI and MoF, have taken significant steps towards meeting CSO demands, such as opening up the selection of National Implementing Entities (NIEs) for GCF to competitive and transparent process, timely information sharing on the selected National Implementing Entities (NIEs)-ECOBANK Ghana, ensuring accessibility to relevant official climate documentation by general public. Further steps towards public transparency include the introduction of the Ghana Climate Data Hub (climatedatahubgh.com) much of the content of which however remains inaccessible for now whether by purpose or due to technical difficulties, as reported. And further with support of UNDP through the GCF Readiness program, MoF developed a Climate Change Tracking Tool. The tool builds on the UNDP CPEIR Classification of Climate Relevant Activities Approach. The tracking tool informed a new set of guidelines by MoF and MESTI to account for climate change expenditures in the 2016 national budget.

6.0 Output 4: Learning, evidence and capacity support is contributing to adoption of CBA in policy and practice in Africa

7.1 Indicator 4.1

The milestone for 2016 indicator 4.1 is co-generation of learning and evidence with national and Africa regional government, NGOs, research and private sector demonstrates value of CBA principles and reflects impacts from ALP learning events and studies. And by June 2017 Evidence of CBA principles and approaches being referenced in dialogue, publications and programmes in the West and East African (Sahel and Horn of Africa) region on adaptation, drought resilience, and DRR and/or climate smart agriculture. Towards achieving the above indicator, ALP Ghana organized a Learning route in March 2016, which was participated by national and district level policy makers, DCEs, MOF, NDPC, NADMO, FAO, MOFA, CARE WARMU staff, CSOs from other regions, and the Media. The learning event took participants to ALP CBA site communities in the Garu-Tempene District to learn practical CBA of community BASED Adaptation. As a result of this visit the then DCE of the NKD introduced dry season model gardens in district two of which are sited in 2 ALP communities. ALP collaborated with University of Reading, GMet, and the water resources institute in implementing research project called Building understanding of climate variability into the planning of groundwater supplies from low storage aquifers in Africa (BRAVE2) sponsored by DFID. The project which is implemented in the 4 ALP communities of the East Mamprusi and Garu-Tempene districts aim at developing a model system that links climate model output with the land surface model and the groundwater model using the linked model system as a means to examine the sensitivity of groundwater recharge to key climate and land use controls; application of the linked model system to case studies within the River Volta Basin to assess the impact of climate variability on water supplies in areas of low groundwater storage; and examine how model output might be used in future to support decisions made on groundwater development. BRAVE is currently interested in disseminating climate information to communities and is considering the possibilities of using the CIC, this presents a learning opportunity for BRAVE. Also, the ALP will be learning through the proposed demonstration underground water facility which will complement the

dry season farming in the project communities. Also as BRAVE II is multi-country and multi-stakeholder research project, the CBA outcomes are widely disseminated.

CARE/ALP in partnership with the University of Utrecht under the COCOON research project carried out a numbers studies, one of them is **'Understanding the impact of changes in mobility on household adaptive capacity in semi-arid rural northern Ghana'** (Jonathan Porter, August, 2015). The study explored how changing patterns of seasonal migration affect household capacities to adapt to climate change. It analyses the adaptive and a maladaptive impact of mobility on households is presented alongside an investigation into the shifts in patterns of seasonal migration in the Farfar in the last ten years. Findings of the study revealed that seasonal migration has declined in the last ten years and that the key reason for these changes is the uptake of dry season farming which is supported by a community based adaptation intervention. The study indicates the initiation of dry season farming in the climate vulnerable community of Farfar and in particular the introduction of watermelon, has provided a new source of income during the dry months and has begun to change these long standing patterns of seasonal migration. The ALP intervention has helped to start up VSLAs to enable households to purchase the necessary inputs for dry season farming; improved access to markets for farming inputs and certified seeds; provided water pumps for dry season farming; delivered advocacy courses; and begun to combine local weather knowledge with scientific weather data to enable local farmers to better predict weather patterns in the coming season. The onset of dry season farming means that members of some households no longer need to travel down south during the dry months since they can earn a living at home during this previously stagnant period. Indeed, dry season farming has proved highly profitable for some members of the communities, in particular those who are farming watermelon. (Jonathan Porter, August, 2015 P.17). The study recommends among others the identification of adaptive outcomes of autonomous behaviour that can be facilitated and maladaptive outcomes that should be prevented or mitigated, identify gaps in the adaptive benefits that autonomous strategies offer as target areas for interventions, provide a more comprehensive and complete basis upon which adaptation interventions and their net impact on adaptive capacity can be analyzed and assessed.

Community-Based Microfinance for Adaptation: ***Panacea for Inclusion at the Household Level, or Source of Gender Conflict?*** (Viviana; C. 2016). The study looked at existing power imbalances that frequently undermine the effectiveness of adaptation interventions aimed at strengthening local adaptive capacity of the most vulnerable groups, women among others. The study assesses the rising of conflict and cooperation dynamics as an effect of a climate change adaptation intervention and their influences of women's adaptive capacities. The researcher tried to explore the question of whether social capital, and in particular perverse social capital, explains the lack of evidence of improved social conditions and adaptive capacities among women participating in Village Savings and Loans Associations in the Farfar community of Garu-Tempene district. The study finds out that perverse social capital acts as a reinforcing factor of traditional division of labour undermining NGOs effort to improve women's adaptive capacity through microfinance associations. Both women and men according to study, acknowledge managing the loans they take through a somehow participatory process in the family. It concludes that the perverse effects of strong social bonds can explain to a very large extent the lack of

improvement in women's adaptive capacity and in their role in household economic decision making processes.

In sum, the milestone and targets for indicator 4.1 are achieved. Firstly the Gmet in partnership with the department agriculture (DoA) at the district level and community monitors at the ALP project sites are co-creating knowledge on CIS through generation of rain fall data and information using the rain gauge. Secondly, the integration of PICSA and PSP provides another evidence of co-creation of knowledge between ALP Ghana and University of Reading. It is worthy of note that the integration of the two models has added value to CIS making it more relevant to small holder farmers. Besides, the thesis and articles produced through various studies conducted by University of Utrecht students at the ALP site communities copiously referenced ALP CBA approaches and strategies namely VSLAs, dry season farming enhanced through water pumps support, combining local weather knowledge with scientific weather data to enable local farmers to better predict weather patterns in the coming season which refers to PSP.

Learning from Annual Reflection Meetings (ARM): One of the methodologies used by ALP to gather and validate information was the ARM. During these meetings the ALP boundary partners including the DA/DoA, Gmet and ABANTU for Development were always present. This included CSOs indirectly involved with ALP, NADMO, MoFA, ILGS, community members and monitor, District Planning Officers, EPA, MoF, UDS, ESOKO among other. These are key stakeholders who have been involved with the ALP extension from inception can easily trace the changes in BPs and community members as a result of ALP. As multi-stakeholder and multi-sector meetings, the annual reflection meetings provided opportunities for information sharing and learning among stakeholders hence promoting adoption and upscale of CBA approaches and strategies among institutions and individuals. For instance, the Assembly man for Nanville sought information from the Adaptation Fund project advisor on the status of the project activities of which his community is one of the beneficiaries in the January 2017 annual reflection meeting. This information enabled the Assembly Man and his community to better monitor AF project and ensure better accountability. Furthermore, rain gauge monitors shared their experiences on what is working well and what is not working and practical innovations employed. Some monitors for instance explained that to determine the soil moisture and validate with rain gauge data recorded, they dip their finger into the soil. Besides, ALP uses this platform to gather from participants things they are doing differently and other changes occasioned by ALP. For instance, at the just ended 2017 ARM, the department of agriculture from the Nadowli-Kaleo district and ALP existing sites stated that farmers are now better able to plan for the farming season because of the seasonal and weather forecast provided by Ghana Met services thus help in reducing agricultural losses. It must be noted further that agriculture extension officers have been trained on PSP and have since been working with Gmet officials in helping farmers access CIS. They have most recently been trained on the ENACT/map room through which they acquired skills access climate information of their most conveniently for their purpose.

7.2 Indicator 4.2

Under indicator 4.2, the milestone was to have 2 training institutions incorporate CBA into their training curricula relevant for adaptation practitioners and policy makers and subsequently become learning and innovation hubs, and communities of practice for other interested stakeholders in Africa. To end ALP Ghana collaborated with University of Utrecht in the Netherlands under the cocoon project developed a conflict checklist to complement the Adaptation Good Practices (AGPs) document developed by ALP to ensure that adaptation interventions less conflictive and avoid maladaptation. The cocoon project in partnership with ALP established a learning platform which brought together NGOs and government institutions across the country to share repository cases of conflict and cooperation arising from the implementation of adaptation interventions leading to development of a database of such cases towards developing policy and briefs. It significant to learn that the ALP Ghana National Coordinator also coordinates the work of pillar 2 of the cocoon project in Kenya and Burkina Fasso , hence these countries also had the opportunity learn about AGPs. ALP Ghana in partnership the Savanna Agricultural Research Institute (SARI), a partner organization under cocoon undertook a scoping studies into studies into Fulani-pastoralist enclaves in Ghana to gather firsthand information on conflicts reported conflicted between vulnerable smallholder crop farmers and Fulani-pastoralists which undermines adaptive capacity development and derail the benefits of adaptation interventions. The outcome of the of these studies is culminating into regional stakeholders meeting scheduled to take place in June 2017 with the aim to trigger a pastoral policy in Ghana. Additionally, ALP Ghana commissioned University of Utrecht under the cocoon partnership to carry out CBA impact studies in Ghana. The studies came out with substantial evidence that VSLAs which is one of CARE flagship models and has been considered as a 'no regret' CBA strategy is rather destroying the natural resource base of the communities since VSLA members mostly women engage in charcoal burning and fuel harvesting for sale in order to pay the VSLA contributions. These acts are of course unsustainable and represent cases of maladaptation. This is a key learning of the ALP Ghana from this studies whose findings will be shared at CBA11 in Uganda.

Furthermore, the Institute of Local Government Studies (ILGS) was identified to partner with ALP in this venture giving its mandated role of building capacity of local government officials in the Country. ALP held series of meetings and a draft MoU was developed with road map to implement the project. We could not however proceed with the MoU as a result of review of the ALP country offices budgets leading to the reduction of ALP Ghana budget by \$USD50,000.00 while the total budget for the institutionalizing CBA with ILGS was \$USD\$40,000.00. However, CARE Ghana has signed a general MoU with the institute to facilitate future engagements. Also, the ALP held the assumption that the institute will take this upon themselves and allocate their own resources to the institutionalization of the CBA models, but this was not the case.

The University for Development Studies (UDS) has submitted a concept note to Ghana ALP requesting our technical support to launch a new academic program and department on Climate change. ALP is being requested to help the university build in CBA into their curriculum of the WA and Nyamkpala campuses of UDS and have officially written to CARE Discussion between CARE and UDS is on-going develop joint program that will hosted by UDS with opportunities give to CARE staff to teach on specific CARE models UDS will take up the capacity building assignment of CARE. A stake holder workshop will

Commented [F1]: What, who and how has ALP Ghana engaged in or supported CBA learning and sharing beyond Ghana? Through Alp, or CARE, or COON, or West Africa regional bodies or any others? Give details

be held with support of ALP in May 2017 to look at what goes into the proposed courses. This still provides another window of opportunity to institutionalize the CBA approaches. Students and lectures from the Wa and Tamale campuses of UDS have reported that they are already using ALP CBA materials for research and teaching. The UDS has also sent students on placements in the ALP site communities for their third trimester field work. This sets the stage for effective collaboration. The challenges relating to the non-achievement the targets under indicator 4.2 stemmed from the late conception of the strategy. The idea to institutionalize the ALP CBA approaches with an academic or professional institute was conceived under the ALP extension phase. Even though a good strategy, there was little time to circumvent the bureaucracies associated with public institutions to get this done speedily. Additionally, in the case of ILGS, the Director who represented the institute in the consultative process and drafting of the MoU was in an acting position and thus was dragging his feet. It is significant to note that the substantive Director soon after assumption of office called on the ALP National Coordinator and the CARE Ghana senior management re-activate all the activities between and ILGS leading to the signing of a general MoU between the 2 organizations.

7.3 ALP learning on output 4

The learning events have showed cases the practical relevance of ALP CBA models and strategies to organizations and institutions thus, resulting in partnership request from these institutions with ALP for institutionalization and upscale of the models. For instance, the Wa and Nyamkpala campuses of the University for development have officially written to CARE Ghana requesting partnership in climate change course development and the use of ALP documented resources.

The University of Utrecht-Netherlands and University of Reading-UK through collaborative research work with CARE/ALP under COCOON and BRAVE II projects respectively continue to popularize the ALP CBA approaches beyond Ghana and add more value to them.

The FAO has adopted the ALP Community Information Centres (CIC) model and modified as Village Information Centres (VICs) which is proposed to MOFA for communication of CSA strategies to farmers.

Working with Universities involves a lot bureaucratic processes. It is advisable to initiate action in good time.

8.0 Summary analysis of ALP Ghana outcomes and impacts

ALP under the extension period has facilitated processes that enhanced the capacities of vulnerable households and communities to be able to adapt to changing climatic conditions. Communities within the Nadowli kaleo districts during the CVCAs, household came to the realization that there are different levels of vulnerability within the communities and varying capacity to be able to adapt. In this light, communities were ready to avail themselves for different experiences and learning sessions to bring about a change. This brought about change in seed variety, high demand for climate information by both men and women, setting communities developmental priorities right and mobilizing resources

which includes community level change agents, allies mobilizations, fund raising, marketing of the CAAPS, advocacy through petitioning and media broadcast and fundraising. Communities are able to identify what differentiates their past and the present. Yields have improved due to increase access to climate information, agricultural advisories, input and improved varieties. Women are participating in community committees where important decisions are taken namely Parents & Teachers' Association (PTA)/ School Management Committee (SMC), Church committees, water Users Association (WUAs) and Community Health Committees. Women occupy leadership position in CBOs such as the VSLAs where they constitute about 75% of the membership and so holds the highest percentage of leadership positions within these local based organisations.

The women in the CBOs are the main decision makers as the male leadership provide record keeping roles in most cases. The impact of women being part of management committees of community institutions gives the opportunity for them to raise issues pertaining to women and children during meetings. They may not be able to influence the decisions but makes participants become aware of such issues. Five (5) national organizations namely GMET, MOFA, EPA, OXFAM, and a CARE program, PATHWAYS have largely promoted CIS in Ghana. Also Eleven (11) organizations have increased their capacity in CBA approaches and scale out at various levels. These were achieved through the facilitation of ALP using various approaches including the radio and CICs for information dissemination, working through community monitors, building capacity of boundary partners through joint planning and implementing project activities, providing training on the CIS models such as PSP, learning from other projects and co-creating knowledge for instance the integration of PICSA from the University of Reading and PSP., project reflection meetings and learning visits. Ministries, Departments and Agencies (MDAs), especially MESTI and MoF have become more responsive towards CSO demands, such as opening up the selection of National Implementing Entities (NIEs) for GCF to competitive and transparent process, timely information sharing on the selected National Implementing Entities (NIEs)-ECOBANK Ghana, ensuring accessibility to relevant official climate documentation by general public. Further steps towards public transparency include the introduction of the Ghana Climate Data Hub (climatedatahubgh.com) much of the content of which however remains inaccessible for now whether by purpose or due to technical difficulties, as reported. And further with support of UNDP through the GCF Readiness programme, MoF developed a Climate Change Tracking Tool which is available to the public and finally, ALP in partnership with the University of Utrecht under the COCOON research project carried out a numbers studies including 'Understanding the impact of changes in mobility on household adaptive capacity in semi-arid rural northern Ghana', 'Community-Based Microfinance for Adaptation: *Panacea* for Inclusion at the Household Level, or Source of Gender Conflict? These studies were built on ALP's work.

9.0 Likelihood of Sustainability of Result

Generally, ALP adopted a "learning by doing" approach in building the capacity of its boundary partners and encouraged this same approach in capacity building and implementation of CBA approach so as to

ensure first hand application, trial and understanding of the issues to ensure appreciation and easy replication and adoption by BPs and community members. This will ensure sustainability even upon ALP exit.

9.1 Output one

The approach adopted by ALP for output one was complete community based and demand driven. The interventions identified and taken up, ALP ensured were in direct response to the needs and challenges of the community members and of relevance to their adaptive capacity development. Linkage to SARI and the Department of Agriculture and input dealers for access to improved seed varieties, government subsidized fertilizer, climate information among others. Thus, was the facilitation role ALP played together with district level stakeholders including the department of agriculture, Ghana national fire service, NADMO among others. The ALP also ensure to facilitate the linkage between communities and the district assembly and its decentralized departments. As a result, communities can easily contact district level stakeholders for support were needed, such as good agronomic practices that farmers from Duong requested from the DoA and were supported. ALP also supported already existing adaptation strategies like VSLAs by supporting the formation of new VSLAs, providing them with training on the VSLA methodology so they can address their own issues, be self-reliant/dependent in solving issues and conducting their own share out to minimise the inclusion of non-group members during the share out which from experience leads to theft. The ALP further supported these groups to form Cluster Level Association (CLAs) at the community level and these clusters together formed the NKD apex body. This is to broaden the credit source for members as has been done in the East Mamprusi District (ALP old site) and as well serve as a reference point for clarifications and problem solving for sick groups. ALP also sort to introduce effective interventions that address farmers plight. For instance the sorghum and cassava, these were crops already cultivated in the area but due to their long maturity duration (cassava- 12 months, sorghum-4 to 5 months) communities were reluctant to cultivate them due to the short duration of the raining season. However, upon the introduction of these short maturing varieties and proven high yield, farmers are taking this up as it is addressing the need for improved varieties.

For inclusion of women in leadership roles, ALP in Ghana adopted a more flexible approach, were we sought to build the on existing structures in the community and strengthen women's existing positions in the community and with a subtle approach so as not to over burden (in which case of this happens then they will abandon the interventions) them we introduce them to take up leadership roles at the communities and within committees. Also, ALP drew on the conscious of community members to identify and acknowledge the role of the women in the community and household, as a result the communities for themselves ensure women are included and represented in all activities, planning and decision making processes at all levels. This is on their own initiative and is more sustainable as against it being forced on them.

The ALP in the in the development of the CAAPs ensured it was informed by the CVCA data which unearthed the needs of the communities. The CAAPs are the voice of the people, representing their vision for the community. However, the CAAPs in itself is not an end but a means, therefore the ALP built communities capacity in advocacy, supported the communities to constitute a community

advocacy team to take up issues and lobby for their implementation, also the community have been linked to district level stakeholders and they have developed a rapport with them, thus, they are easily able to approach them and push their issues forward. The aim here is that, communities have a plan which will inform their goal/need, hence the direction they should take. The CAAPs ensures that whatever is implemented based on it, is of key interest to the community and once this need is addressed, it will be sustained by the community.

The ALP in respect to climate information has linked communities to GMet both regional and national for climate information, for which community members receive climate information independent of ALP and as well as submit rain gauge data to the DoA for onward submission to GMet. Communities now have a sense of contribution due to the data they record from the rain gauge and as well see one of the ways in which climate information is generated and as a result can identify their trace in the generation process. Community members having realized the benefits of climate information are seeking for it themselves and have contact numbers of GMet staff whom they contact directly.

9.2 Output 2

The adoption of CBA interventions and models by projects and organizations independent of ALP has been observed. However, to achieve this, ALP ensured that it targeted organizations, institutions and projects for who these are relevant. So for instance GMet is mandated to provide climate information, in doing this ALP involved GMet in PSP to see its relevance and based on the results it has seen for itself, the agency adopted the approach and integrated into training for its new recruits, this was done independent of ALP. Also with organizations such as OXFAM, ADVANCE, MEDA, CFTC, AF among other organizations PSP and demanding for climate information, GMet have noticed this demand and is ensuring it supplies accordingly. Again from community members call for daily forecast and advocacy from ALP, the GMet is disseminating daily weather forecast to farmers and community members and since this forecast has been indicated by recipients to be about 80% accurate, they continue to demand for it and GMet took a self-initiative to conduct a survey on it to determine their performance, this the right direction towards sustainability.

The MoFA having been supported by ALP to have two of its staff from the regional and national level to participate in PSP training in Kenya, have also adopted PSP and replicated in other projects they have implemented. This is done independent of ALP and they are still seeking for funds to replicate it in the CSA platforms they have established in 5 non-ALP districts.

The ALP has also made itself visible and made available its learnings, ensure they are properly documented, user friendly and meeting a viable need from the interventions it has introduced. It has also taken the trouble to organize learning visits so that policy makers and project implementers at various levels are aware of the proven interventions and ready to replicate it. Another approach was in ensuring that we have relevant interventions, practical and can be easily replicated. This for instance in the area of rain gauges pushed GMet to source funding to replicate rain gauges in 40 communities in the Upper East and West regions of Ghana, OXFAM and PARED replication of rain gauges in the CRAFS project among others.

9.3 Output three

ALP here also worked with a key partner/stakeholder ABANTU for Development to implement output 3. This partner has a network of CSOs across the regions of Ghana, this enhanced the reach of ALP advocacy for accountability and fairness regarding CC funds especially the AF. This is in line with the mandate and core duties of CSOs who are the voices of the vulnerable (and CC makes them more vulnerable) and advocate on their behalf and this was seen in the actions taken by Community Development Alliance a CSOs base in the Upper West region of Ghana, who independently through a press release made known the information gap (lack of information for CSOs) created by the AF in Ghana. Under this output, relevant stakeholders at the national and other levels such as the NIEs for the AF projects, the Ministry of Finance, EPA among others have been engaged on several platforms to enhance proper utilization of the CC funds made available. CSOs capacity has also been built in CC and the CBA models, thus CSOs are calling for plans and organizational/project budgets to be climate change compliant and for the development of standalone climate change activities for easy tracing and higher impacts. Aside these, with the education and sensitization on the Joint Principle of Adaptation (JPA)/Adaptation Good Principles (AGPs) it is expected that CSOs will refer to these in their proposal development for not only CC funding. Also, based on agreed criteria for CC proposals, CSOs hoping to source these funds will need to refer to the AGPs/JPAs as a guide.

10.0 Challenges/barriers encountered and how they were managed

The observed polarization of community leaders such as chiefs, Assembly persons and Unit committee members by local partisan politics makes it difficult to present a common front to advocate for development benefits from DA and other development partners as captured in the community CAAPs. This constitutes a setback in the implementation of CAAPs.

Community members largely lack the understanding to contribute money to support community advocacy issues. For instance, the cost of travelling to the district capital to engage with district level officials is often left to the community opinion leaders and community monitors alone to bear. This dampens the morale and initiative of these leaders

Lack of government priority on issues being pursued by community advocacy groups have been unsuccessful and frustrating notwithstanding the high priority given to those issues by the community. Eg the people of Kanyini have been advocating for the extension of electricity to two of their sections namely Kanyinduori and Toziiri but have not been successful because these communities unfortunately are not in the DA priority list. This in turn makes them feel disenchanted in the activities of ALP. These challenges relating to advocacy for CAAPs implementation were managed through the selection of community advocacy groups training for them on the basics of advocacy to appreciate the dynamics of advocacy to brace up and confront the issues.

There is a challenge of elite capture in the benefits of ALP in some communities. A community member from Duong complained during the March 2017 annual reflection meeting that even though the Nadowli-Kaleo district Assembly dry season gardening model is good some community members have

their lands being taken from them and they have not been allotted a plot in the garden which constitute a threat to their livelihood.

A challenge relating to community rain monitors has to do with provision of little financial support to enable them travel to the district capital to submit rain fall data at District agric office. Community monitors demand financial assistance from GMET/DoA to travel to the district level to submit recorded rain fall data to the DoA Director for onward submission to the Gmet head office. This demand has not met as the two organizations are also not financially resourced. ALP provided bicycles to all community rain gauge monitors to help address this challenge

Some community rain gauge monitors do not keep proper records of rain fall data. The situation is exacerbated by the inadequate field monitoring by Gmet and DoA officials to the rain gauge monitors. This has implications on rain fall data quality and reliability of forecast. ALP provided mobile phones to monitors in ALP existing to text recorded rain fall data directly the Gmet and has encouraged Gmet replicate same with support from other development partners.

Another challenge relating the CI work which is that the operations of Gmet are centralized with inadequate technical staff and capacities at the GMET regional offices as well as logistical constraints. There is completely no presence of Gmet at the district level where their services are most needed. ALP tried to manage this challenge by brokering relations between Gmet and the district department of Agriculture. By this arrangement, Gmet is being represented by DoA at the district level, and receives rain fall data from monitors on behalf of Gmet. ALP also facilitated partners between Gmet and private sector organizations and media houses to enhance the generation and dissemination of climate information.

Under output3 its observed that knowledge on Climate finance for remains relatively low, with technical expertise resting on a few individuals from MESTI and MoFEP, rather than being institutionalised, notwithstanding the effort of the GCF Readiness programme capacity building strides made by other donor agencies such UNDP. Local government authorities and many CSOs lack the capacity to access climate finance directly and account properly for climate change interventions implemented. Our approach to mitigate this challenge was to invite the MOF staff to ALP platform meetings to provide information and update participants on the issues of GCF as a way of building their capacity.

Under output4 the idea to institutionalize the ALP CBA approaches with an academic or professional institute was conceived under the ALP extension phase which was a bit late. The strategy, even though it is good failed to recognize the bureaucracies associated with public service institutions. Additionally, the Director of ILGS who represented the institute in the consultative processes and drafting of the MoU was in an acting position and therefore was hesitant in taking major decisions. ALP managed this challenge by opening up the institutionalization of CBA approaches for interested institutions to express interest and UDS has put in an expression of interest.

11.0 Analysis of ALP partnerships/relationships, their outcomes and future opportunities.

Facilitating adaptive capacity building and ensuring uptake of tested CBA models and approaches involves multiple actors working at various sectors and levels. ALP Ghana was able to achieve about 95% of set targets and milestones with minimal resources due to the partnership strategy adopted in the extension phase of the project. ALP adopted the outcome mapping approach to measuring the results of ALP. Three (3) main Boundary Partners (BPs) were selected namely Ghana MET Services, District Assembly and ABANTU for Development with assumption that influencing these organizations through capacity building and other interventions will result in multiplying impact. Ghana MET Services was selected to ensure that CIS and products are reliable and reach the climate vulnerable population timely and in user-friendly formats. The Nadowli-Kaleo district Assembly which encompass the all the decentralized departments and agencies such as agriculture, health, NADMO, Ghana fire service, social welfare, cooperative, community development etc was to ensure integration of the CBA approaches in their plans budgetary allocations and facilitate upscale. ABANTU for development was to lead CSOs in advocacy on transparency and accountability in the allocation of national climate change resources for the benefit of the vulnerable. ALP Ghana used the joint implementation approach which enabled the project staff to work with the boundary partners thus facilitating direct skill transfer. Several activities brought the BPs work together demonstrating their contributory roles in building adaptive capacity. Quarterly reflection meetings for instance facilitated relationships among project stake holders from the community, district, regional and national levels which are very crucial building social capital and sustaining project outcomes.

Partners that were involved in ALP Ghana work in the extension phase include CSOs ABANTU for Development, GDCA, NORPPRA, PARED, CAPECS, CDA, PRONET, PAS-G, and the local media houses. At community level partnership included the traditional authorities, Community Monitors and women groups. At the local government level, ALP worked with the District Assemblies namely the NKDA, GTDA, and EMDA with their decentralized departments such as Department of Social Welfare, Community Development, National Disaster Management Organization(NADMO), Ghana National Fire Service, District information department. At the national level regional and national level, ALP engaged with GMet, MESTI, EPA, SARI. The project also academic/research and professional institutes with the aim to institutionalizing tested CBA approaches and strategies into academic curriculum for upscale. These institutions include Institute of Local Government Studies (ILGS), University for Development Studies (UDS), University of Utrecht/Cocoon and the, University of Reading-UK. (see ALP Ghana excel log frame report partnership tap). All the above organizations/institutions and many others contributed in various towards achieving the results recorded by ALP Ghana. The partnership and relationships created by ALP will ensure continuous interaction hence sustaining outcomes of the project.

12.0 List of references from July 2015 to June 2017

1. ABANTU for Development (2016). "Minutes of partnership meeting with CARE International 26th July 2016".
2. ALP (2017). "A report on ALP exit meetings in the NKD- 16th to 19th June 2017".

3. ALP (2017). "A report on Nadowli-Kaleo traditional council communique release on anti-bush fire campaign-19th May 2017".
4. ALP (2017). "A report on the commission of CIC in Duong community- 6th June 2017)
5. ALP (2015). "Submission by CARE International in Ghana of proposed action for the national climate change learning strategy 19th November, 2016".
6. ALP (2016). "A report on climate information services planning meeting- 11th to 12th April, 2016".
7. ALP (2016). "A report on Garu-Tempene District community adaptation action plan review- 28th April to 1st May 2016".
8. ALP (2016). "A report on GTD PSP advisories dissemination- 30th April to 1st May 2016".
9. ALP (2016). "A report on monitoring and training visit to the ALP climate information centre- 7th to 8th July 2016".
10. ALP (2016). "A report on NKD Assembly Members capacity building workshop on CC- 23rd June, 2016".
11. ALP (2016). "A report on NKD community based adaptation design workshop- 23rd to 27th February 2016".
12. ALP (2016). "A report on participatory integrated climate services for agriculture facilitators training- 8th to 11th March 2016".
13. ALP (2016). "A report on the 2016 participatory scenario planning facilitators training- 13th to 11th April, 2016".
14. ALP (2016). "A report on the 5th interagency platform meeting- 14th September, 2016".
15. ALP (2016). "A report on the advocacy TOT in the Nadowli-Kaleo District- 5th to 6th September, 2016".
16. ALP (2016). "A report on the distribution and establishment of sorghum value chain in the Nadowli-Kaleo District-2016".
17. ALP (2016). "A report on the distribution of Maize in the NKD- 2016".
18. ALP (2016). "A report on the identification of seed multipliers, distribution and cultivation of improved maize variety for multiplication in the NKD-2016".
19. ALP (2016). "A report on the integrated pest management and liquid fertilizer training- 5th April 2016".
20. ALP (2016). "A report on the preparation of the CAAPs in Chaang community in the Nadowli-Kaleo District February 2016".
21. ALP (2016). "A report on the preparation of the CAAPs in Duong community in the Nadowli-Kaleo District February 2016".
22. ALP (2016). "A report on the preparation of the CAAPs in Kanyini community in the Nadowli-Kaleo District February 2016".
23. ALP (2016). "A report on the preparation of the CAAPs in Nanville community in the Nadowli-Kaleo District February 2016".
24. ALP (2016). "A report on the preparation of the CAAPs in Takpo community in the Nadowli-Kaleo District February 2016".
25. ALP (2016). "A report on the preparation of the CAAPs in Zambogu in the Nadowli-Kaleo District February 2016".

26. ALP (2016). "East Mamprusi District Participatory Scenario Planning report- 26th to 27th April 2016".
27. ALP (2016). "Garu-Tempene District activity report- Jan to April 2016".
28. ALP (2016). "Garu-Tempene District Participatory Scenario Planning report- 18th to 21st April 2016".
29. ALP (2016). "Garu-Tempene District PICS training for communities- 17th March to 15th April, 2016".
30. ALP (2016). "Nadowli-Kaleo District activity report-June to July 2016".
31. ALP (2016). "Nadowli-Kaleo District activity report for the month of August 2016+-".
32. ALP (2016). "Nadowli-Kaleo District activity report for the period July to September-2016".
33. ALP (2016). "Nadowli-Kaleo District Community monitors' training report- 1st to 3rd February 2016".
34. ALP (2016). "NKD Participatory Scenario Planning report- 24th to 25th April, 2016".
35. ALP (2016). "Report of Policy Makers Learning Visit to ALP sites in the Garu-Tempene District 2nd-3rd March, 2016".
36. ALP (2016). "Report on meeting of non-governmental organization and developmental partners interface with NKDA 29th September, 2016"
37. ALP (2016). "Report on PICS Training in the EMD 29th -31st March, 2016".
38. ALP (2016). "Report on PICS training in the EMD-29th to 31st March 2016".
39. ALP (2016). "Report on VSLA boxes distribution in the NKD-2016".
40. ALP (2017). "A report on the ALP annual reflection meeting-23rd to 24th February 2017".
41. ALP (2015). "A report on CVCA training in the Nadowli-Kaleo District October, 2015".
42. ALP (2015). "A report on output one and two outcome Mapping Pathways and Strategy development August, 2015".
43. ALP (2015). "A report on output three outcome mapping pathways and strategies August, 2015".
44. ALP (2015). "A report on the boundary partner identification workshop July, 2015".
45. ALP (2015). "A status report on the ALP communities in the GTD- December, 2015".
46. ALP (2015). "Kanyini community marker crop data, respondent 1- November, 2015".
47. ALP (2015). "Kanyini community marker crop data, respondent 2- November, 2015".
48. ALP (2015). "Kanyini community marker crop data, respondent 3- November, 2015".
49. ALP (2015). "Kanyini community marker crop data, respondent 4- November, 2015".
50. ALP (2015). "Kanyini community marker crop data, respondent 5- November, 2015".
51. ALP (2015). "Kanyini community marker crop data, respondent 6- November, 2015".
52. ALP (2015). "Status report on alp communities in the East Mamprusi District- December, 2015".
53. ALP (2015). "Takpo community marker crop data, respondent 1- November, 2015".
54. ALP (2015). "Takpo community marker crop data, respondent 2- November, 2015".
55. ALP (2015). "Takpo community marker crop data, respondent 3- November, 2015".
56. ALP (2015). "Takpo community marker crop data, respondent 4- November, 2015".
57. ALP (2015). "Takpo community marker crop data, respondent 5- November, 2015".
58. ALP (2015). "Takpo community marker crop data, respondent 6- November, 2015".
59. ALP (2015). "Zambogu community marker crop data, respondent 1- November, 2015".

60. ALP (2015). "Zambogu community marker crop data, respondent 2- November, 2015".
61. ALP (2015). "Zambogu community marker crop data, respondent 3- November, 2015".
62. ALP (2015). "Zambogu community marker crop data, respondent 4- November, 2015".
63. ALP (2015). "Zambogu community marker crop data, respondent 5- November, 2015".
64. ALP (2015). "Zambogu community marker crop data, respondent 6- November, 2015".
65. CARE International adaptation and advocacy project and ABANTU (2016). "Final Validated Analysis of 2016 Budget from Climate Change and Gender (2) 30th June 2016".
66. CARE International in Ghana (2015). Annual report.
67. CDA (2016). "Report on a USAID regional forum on mainstreaming inputs of youth and women farmers into SADA MTDP 17th June 2016".
68. CoCOON (2016). "COCOON research report on pastoralist"
69. East Mamprusi District Assembly (2010). "District medium term development plan, 2010-2013".
70. East Mamprusi District Assembly (2014). Performance review, profile and current situation of EMDA, "District medium term development plan, 2014-2017".
71. Ebenezer Nortey (2016). "A presentation on Climate finance tracking & updates on NDA 14th September, 2016".
72. Garu-Tempene District Assembly (2014). Draft District medium term development plan, 2014-2017.
73. Ghana CCAFS (2016). "Report on mobilization, establishment and launch of CSA science-policy platform in the NKD 24th June, 2016".
74. Ghana Meteorological Services (2016). "Course outline_asst. meteorologist_15th April-3rd June 2016".
75. Gumah K.S. and Neindow M., (2016). "Quote from Isaac Wuni".
76. Gumah K.S. and Neindow M., (2016). "Quote from Sahadatu".
77. Jonas A. A., (2016). "Department of community development, faculty of planning and lands management, department of community development; Request for Collaboration 11th October, 2016".
78. Jonathan Porter (2015). "Shrinking mobility in soaring temperatures; Understanding the impact of changes in mobility on household adaptive capacity in semi-arid rural northern Ghana-August 2015".
79. Joseph A., (2016). "University for Development Studies, faculty of Agribusiness and communication sciences, department of climate change and food security; expression of interest for partnership with CARE Ghana 27th September, 2016".
80. Kingsley K. A., (2015). "Update on participatory scenario planning activities October, 2015".
81. Ministry of Food and Agriculture (2015). Medium term agriculture sector investment plan (METASIP) II, 2014-2017
82. Ministry of Food and Agriculture (2015). National climate-smart agriculture and food security action plan, 2016-2020.
83. Nadowli-Kaleo District Assembly (2014). District medium term development plan, 2014-2017.
84. Shani Haruna (2016). "BRAVE project; Community background information report 26th October 2015".

85. The Ministry of Environment, Science, Technology and Innovation, republic of Ghana (2015). "Ghana national climate change master plan action programmes for implementation: 2015–2020".
86. Vivianna (n.a). "Community-Based Microfinance for Adaptation; Panacea for Inclusion at the Household Level, or Source of Gender Conflict".
87. ALP (2017). "A report on AGPs/JPA training- 6th to 13th April 2017".
88. ALP (2016). "NKD activity report for the period April to June 2016".
89. ALP (2015). "Kanyini community wealth ranking data- November, 2015".
90. ALP (2015). "NKD wealth ranking class distribution- November, 2015".
91. ALP (2015). "Chaang community wealth ranking data- October, 2015".
92. ALP (2015). "Duong community wealth ranking data, October, 2015".
93. ALP (2015). "Nanville community wealth Ranking- October, 2015".
94. ALP (2015). "Takpo wealth ranking- October, 2015".
95. ALP (2015). "Zambogu community wealth ranking data- October, 2015".
96. ALP (2015). "A report on Duong community CVCA, November, 2015".
97. ALP (2015). "Chaang CVCA data template- November, 2015".
98. ALP (2015). "Chaang CVCA report, November 2015".
99. ALP (2015). "Duong CVCA data template- November, 2015".
100. ALP (2015). "Kanyini CVCA data template- November, 2015".
101. ALP (2015). "Kanyini CVCA report- November, 2015".
102. ALP (2015). "Nanville CVCA data template- November, 2015".
103. ALP (2015). "Nanville CVCA report- November, 2015".
104. ALP (2015). "NKD wealth ranking scale- November, 2015".
105. ALP (2015). "Takpo CVCA data template- November, 2015".
106. ALP (2015). "Takpo CVCA report- November, 2015".
107. ALP (2015). "Zambogu CVCA data template- November, 2015".
108. ALP (2015). "Nadowli-Kaleo Activity Report-December, 2015".
109. ALP (2016). "Chaang community visioning-17th February 2016".
110. ALP (2016). "Duong community visioning-17th February 2016".
111. ALP (2016). "Kanyini community visioning-15th February 2016".
112. ALP (2016). "Nanville community visioning-17th February 2016".
113. ALP (2016). "Takpo community visioning-17th February 2016".
114. ALP (2016). "Zambogu community visioning-22nd February 2016".
115. ALP (2016). "East Mamprusi District activity report-August 2016".
116. ALP (2016). "Garu-Tempene District activity report-August 2016".
117. ALP (2016). "AASS Jan-Sept 2016".
118. ALP (2016). "Anti-bush fire campaigns 15th to 21st October 2016".
119. ALP (2016). "ALAP status report- July to December 2016".
120. ALP (2017). "A report on ENACT training-13th to 14th March 2017".
121. ALP (2017). "A report on PSP trainer of trainees- 28th April 2017".
122. ALP (2015). "Chaang community marker crop data, respondent 1- November, 2015".
123. ALP (2015). "Chaang community marker crop data, respondent 2- November, 2015".

124. ALP (2015). "Chaang community marker crop data, respondent 3- November, 2015".
125. ALP (2015). "Chaang community marker crop data, respondent 4- November, 2015".
126. ALP (2015). "Chaang community marker crop data, respondent 5- November, 2015".
127. ALP (2015). "Chaang community marker crop data, respondent 6- November, 2015".

13.0 Event tracker from July 2015 to June 2017

Event Dates	Location	Event Host (ALP hosted/non ALP event)	Event title and Web link	Meeting Objective and Key Messages	LEAD person, ALP/CARE participation, and other participants	ALP's contributions and Feedback received	Comments, Follow - up actions/issues
17 th -20 th July, 2015	Wa	Hosted by MAC-F	CVCA training for pathways/ MACF project staff	To build the capacity of the project staff and local government officials on the CVCA methodology to collect CVCA exercise for baseline data in Garu-Tempene and Lambussie-Karni Districts	National Coordinator of ALP, Kalian (ALP intern). Coordinator for MACF. And local partners from Garu-Tempene and Lambussie district	The workshop was organized and funded by MAC-F while ALP prepared and delivered the training	the project will proceed to conduct CVCA data in Garu-Tempene and Lambussie- Karni districts and the ALP to provide technical support and receive updates on the CVCA field work
23 rd -24 th July, 2015	Tamale	Hosted by ALP	Identification and prioritization of Boundary Partner's (BP)	Identification of BP's for each output by participants Provision of baseline information on BP'S Introduction of ALP extension	National Coordinator of ALP, PC from CARE office in Accra, Kalian (ALP intern) DAs and Decentralized departments, CMs, National and regional level stakeholders	The workshop was organized and facilitated by ALP. Participants were taken through the ALP extension goal, purpose and outputs and the outcome mapping methodology.	Base on the identified BPs the ALP will be organizing a workshop on Outcome mapping planning sessions for output 1,2&3

						Participants indicated they had learnt a lot from this activity and expressed their readiness to collaborate with the project	
12 th -13 th Aug, 2015	Bolgatanga	Hosted by ALP	Outcome mapping and planning workshop for output 1&2 in Bolga	Identification of pathways and strategies for output 1 &2, Introduction of ALP Extension to output stakeholders	National Coordinator of ALP, PC from CARE office in Accra, Kalian (ALP intern Leticia CARE micro Lead project officer. CSO's, CMs, DA decentralized departments	The activity was organized and facilitated by ALP. Participants appreciated the outcome mapping methodology as it gets stakeholders to plan for anticipated changes well ahead of the start of project activities but remarked that it requires expert's facilitation	The ALP team to move to Accra to organize the Outcome mapping and planning session for output 3

7 th - 8 th Sept, 2015	Wa	Hosted by ALP in collaboration with the Nadowli-Kaleo district assembly	Introduction of ALP to NKD ALP communities	To set up the stage for a collaborative and supportive relationship between ALP and the new sites in the Nadowli-Kaleo district.	ALP National Coordinator and staff	ALP travel through all the communities and facilitated the process	Communities expressed their willingness to collaborate and work with ALP to implement the interventions.
17 th -18 th Sept., 2015	Accra	Hosted by ALP	Outcome mapping and planning workshop for output 3	Provide opportunity for interaction with output3 boundary partners and to identify strategies and pathways for the output	National Coordinator of ALP, Kalian (ALP intern) other National level stakeholders including MoF, NDPC, ABANTU for development, NADMO, ILGS, CSOs(RELBONENT, Peasant Farmers Asso., Development Institute(DI) FRI	The workshop was organized and solely funded by ALP. Participants expressed their happiness about the extension of ALP, though NADMO was unhappy for not been identified as a BP but the National Coordinato for ALP explained to participants that the BPs were selected by stakeholders with a given criteria, however NADMO will	ALP to compile the workshop product and follow up relevant BPs for any missing data

						still continue be a stakeholder through the District Assembly	
8 th Oct., 2015	Nadowli	organized by ALP in collaboration with NKDA	workshop to introduce ALP extension to Nadowli-Kaleo District Assembly (NK DA) Stakeholders	Introduction of ALP extension to district stakeholder and seeking support and participation in project activities to derive the project benefits	The National Coordinator of ALP and Project Manager, Kalian , Charles-ALP district Facilitator , DCD, DPO, GHS, GES, GMet, MoFA, NADMO Cood., District Environmental Health Officer, Dist. Procurement officers, Dist. Community Devt. Officers, CAPECS (local NGO), BAC,	ALP financially funded this session with support from the DA in the form of venue, Capacity was built in relation to the ALP (purpose, goal, output and phase 1), CBA & LAC frameworks. The district Assembly expressed their appreciation as to what they called "the timely intervention of ALP" since CC they added is real and its rampant in the lives of the vulnerable. the	District level CVCA to be conducted ALP community entry durbars to be carried out, CVCA training in which DA and its staff are a critical participants

						entire DA and other present stakeholders attested to this fact and pledged their support and collaboration with the project. Again, they saw this as a learning platform to be replicated and shared with other DAs and stakeholders .	
10th to 11th April, 2015	Chaang, Kanyini, Takpo, Nanville, Zambogu and Duong	ALP organized the Activity with support from the Nadowli-Kaleo district assembly and key community members	Entry durbars into ALP new communities in the NKD	Official entry of ALP into the community and introduction of the project and its objectives and to solicit for their support	The ALP National Coordinator, ALP staff, Staff of the Nadowli-Kaleo district assembly, NKD fire services and health services	ALP with the help of some community members organized the durbars. Communities pledged their support to the project and the collaboration with the district assembly	The next activity was to conduct the wealth ranking which will be followed up by the CVCA data collection.
12 th Oct., 2015	Wa	Hosted by ALP	Training of Enumerator on Wealth ranking tool	To train facilitators on the wealth ranking tool to aid the collection of	ALP team, enumerators from the district assembly, CSOs,	ALP facilitated the training and participant through a trial	Data collection on the various wealth classes in the 6 ALP

				the right information	health and fire services	indicated understanding of the tool	communities
15 October 2015	University of Ghana, Accra	EPA with UNDP	National Climate Change Learning Strategy (NCCLS) Stakeholder Meeting	To validate findings from external consultant (GreenGrowth Solutions) commissioned with drafting the NCCLS.	EPA, UNDP and CSOs	ALP participation enabled us to contribute more strategically to the final NCCLS document	EPA was supposed to present the NCCLS at COP21. The launch has subsequently been postponed repeatedly. Unclear whether NCCLS was submitted to UNFCCC, as planned. ALP does not prioritise following up.
14 th - 17 th and 24 th Oct., 2015	Chaang, Kanyini, Takpo, Nanville, Zambogu and Duong	Hosted ALP with support from Community chiefs and elders	Community Wealth ranking exercise	To understand communities' definition and classification of wealth categories within the community and the drivers of vulnerability	The exercise was led by the ALP District Facilitator with key participants including the community Catechist, Imam, youth leader, sectional representatives, magazia, rain gauge monitor, VSLA secretary, community	ALP funded cost involved with community supporting in organization. Participants came to the realization of their own wealth classes and appreciated it	ALP to conduct CVCAs in the communities

					members, unit committee members, and Assembly man		
19 th -23 rd Oct., 2015	Wa	Hosted by ALP	CVCA training for ALP staff , NGOs and district officials	Train district level stakeholders on CVCA and climate change concepts and science	The Activity was led by the ALP National Coordinator participated by the full new team of ALP, NKDA staff, local NGOs including CDA, CAPECS, PRONET, PROMISE, and PATHWAYS staff.	The activity was organized and full funded by ALP. Participants appreciated the training and the CVCA methodology tools for analysing vulnerability. They further appreciated the translation of climate change terminology into the local language to enhance communication at the community level	Community level CVCA to be conducted
27 th Oct., 2015	Accra	Co-Hosted by CARE/ALP, World Vision and media foundation	Promoting the sustainable development goals (SDGs) locally- Lessons from the	Create CSO platform on the SDGs	CARE/ALP, CARE Ghana Country Director and the Country Director of World Vision,the	ALP supported financially in hosting the program	Next platform meeting to be held on the 27th of November by self-volunteer

			Millenium Development Goals: The case of education and sanitation		media, CSOs across the country.		leaders of the various objectives of the SDGs
29 th Oct., to 5 th Nov., 2015	Takpo &Nanville , Zambogu, Chaang, Kanyini and Duong	Hosted by ALP with support from the Nadowli-Kaleo district assembly	CVCA data collection and entry	Collection of ALP community baseline data in the NKD	ALP Team, interns, CVCA enumerators, FDG participants, Selected HH (for marker crops)	ALP funded these sessions financially with communities supporting in organization. Communities were excited about the project and came to certain realization about themselves and appreciated the entire process and pledge their support to the project and expressed interest what they should expect from ALP	Compilation of NKD CVCA baseline data Conduct Nadow-Kaleo district Level CVCA

2 nd Nov., 2015	Wa	ALP Hosted the event	CVCA data entry for the first 3 communities	To enter data from CVCA tools that have been collected into data collection template	ALP Team, Interns and enumerators	ALP funded this activity	It was agreed that from which day of CVCA data collection time will be set aside that very day to enter the data onto the template.
9-13 th Nov., 2015	Tamale	ALP hosted	ALP CVCA report writing	To analyse data gathered from the CVCA an prepare a report for each community	ALP Team and ALP Regional M&E	Funded by ALP	Finalize the CVCA reports
10th November 2015	Tariganga & Jawani	Co-Hosted by CARE/ALP, and the University of Reading BRAVE2 project	Building understanding of climate variability into planning of ground water supplies from low storage aquifers in Africa(BRAVE2) project scoping visit to the ALP site communities where the project will be implemented	An entry point into the communities to introduce BRAVE2, hold discussions with community members on the possibility of exploring the use of underground water for agricultural purposes through project pilot	This activity was led CARE/ALP with funds from BRAVE2. Other participants were prof. Rosalid Cornforth of University of Reading, Prof.Aondover Tarhule from University of Oklahoma, David McDonald from the British geological survey department, Dr William Agyekum from WRI, Conlins from CSIR, Dr Henny Osbahr from	ALP is partner in this research project. The BRAVE2 project is building on the work of ALP in the 4 communities where the project will be implemented namely, Tariganga, Akara, Saami and Jawani. The BRAVE2 relied solely on ALP community briefs to write	A follow up scoping to be done before the end of November in the communities to mob up data

					Reading and other participants from Burkina Fasso	the BRAVE2 project background report, Community mobilization was done by the District Facilitator and Monitors	
12th-13th November 2015	Accra	Hosted by BRAVE2 and WRI	BRAVE2 launch workshop and AGM	To initiate and expand communication between the BRAVE2 team and other relevant stakeholders in West Africa, identify key water resources/climate sensitive decisions for West Africa, and also to identify trends in water demad, water availability, and water/land use which will have implications for fututre WRM.	The activity was led by prof. Rosalid Cornforth of University of Reading, and a team of professors from the same University, Other participants were NGOs in the water advocacy sector, Government Institutions, participants from Burkina Faso.	The National Coordinator of ALP participated in in the Annual General Meeting on the 13th of November which was limited to the project partners. At this meeting he gave an overview of the ALP CBA framework , a summary of CVCA exercise conducted at the NKD, the tools used and results. The	The various work packages for the partner organizations were reviewed to provide indicative timeline for implementation

						<p>National Coordinator also brief participants on the ALP site communities where BRAVE will be implemented, the communities selection criteria and how ALP has been able to sustain community interest on ALP. The BRAVE team who participated in scoping visit to the communities were impressed about the warm reception by community members, the good mobilization work of the</p>	
--	--	--	--	--	--	---	--

						community monitors, they were also happy about the dry season gardens and want to use them as the project demonstration sites	
4-Dec-15	Zang	MOFA	Farmers day Celebration	to recognise and award deserving farmers for their contribution to agriculture in Ghana	the event was led by the department of agric of the NKDA	CARE ALP mounted an exhibiton stand on its CBA approaches and methodology. ALP was also given a space in the agenda to remark on issues of climate change ALP supported the event by providing refreshment for the award winners after	ALP to monitor the adoption of the good adaptation practices shared at the farmers' day

						the event.	
17th December 2015	Tamale	CARE	cocoon project stakeholders meeting	To present project research findings to stakeholders for review and validation	CARE Ghana, Council for Scientific and Industrial Research (CSIR-SARI)	The PM for ALP Ghana participated in the peer review meeting and made a presentation on the VSLA model and how it works. She answered questions from participants to provide them insight to the VSLA approach.	The CSIR -SARI shared information on improved seed including the release of drought tolerant varieties, low nitrogen feeding varieties, early maturing varieties. ALP would follow up on this to facilitate farmers in ALP sites access to such released varieties.
18th January 2016	Tamale	CARE ALP project	Reflection meeting with stakeholders	To bring stakeholders of the ALP together to reflect progress after half year through the implementation of ALP extension	Participants include the ALP team, Gmet, SARI, MOFA, DA, Community monitors, national level participants, other NGOs	It generated feedback for the annual report for 2015	ALP to compile output of the reflection meeting and write half year report

1st – 3rd Feb, 2016	Wa	ALP hosted	NKD CMs training	To train new selected Community Monitors in the 6 new ALP site communities in the NKD on their roles and functions	Community monitors	Training was organized and facilitated by ALP. Monitors felt capacitated to perform their functions	District Facilitators to continue providing coaching and mentoring for Facilitators
4 th – 5 th Feb, 2016	GTD	ALP hosted in collaboration with support from Garu-Tempane Community monitors	Nadowli-Kaleo District Monitors learning visit to Garu-Tempane ALP sites	To facilitate practical and peer learning from the monitors of the existing ALP communities in the Garu-Tempane District	Nadowli-Kaleo District Facilitator, Community Monitors, ALP project Manager and agric extension officer	Activity was planned and funded by ALP. Participants were impressed at how their counterparts the Garu-Tempane district dig wells as deep as 25 feet to scoop underground water for irrigation of their vegetable gardens	The Monitors purchased onion and water melon seeds. The district facilitator for Nadowli-Kaleo district to monitor the trials of the seed bought by the monitors
15 th -22 nd Feb, 2016	Garu-Tempane District	ALP with support from	Community visioning in the ALP communities of the Nadowli-Kaleo district	To support various livelihood groups within the ALP site communities develop their community vision for 5-10 years and	ALP team, DA staff, community members	ALP funded the process and supported in the facilitation together with the enumerators	Activity of CAAPs to be designed to feed into the visions

				identify the barriers that will hinder the realization of the visions in the changing climate and how to overcome these barriers			
17 th - 18 th Feb, 2016	Garu-Tempane District and East Mamprusi district	ALP in collaboration with BRAVE 2	BRAVE2 Scoping visit to selected project communities	To conduct community entry for BRAVE2 in Tariganga, and Akara in the Garu-Tempane district and Saamini and Jawani in the East Mamprusi district.	Officials from University of Reading, ALP district Facilitators, Community Monitors and community members	ALP supported in community preparation and taking inventory of the underground water resources	communities Community members were happy to have BRAVE2 building on ALP's work. The next activity was baseline data collection
23 rd - 27 th Feb, 2016	Wa	ALP in collaboration with the NKDA	Nadowli-Kaleo district CBA design and planning workshop	Support new ALP communities in the Nadowli-Kaleo district design CBA initiatives from the CVCA data collected leading to development of CAAPs	ALP Ghana staff and CBA capacity building advisor, Community members, Assembly members, district and NGO experts	Activity was planned and facilitated by ALP.	Finalized CAAPs
2 nd - 3 rd Mar,2016	Garu-Tempane District	ALP in collaboration with the GTDA	Policy makers learning route to ALP CBA sites in the Garu-Tempane district	Showcase ALP CBA works to policy makers and facilitate interaction between	CARE-ALP, with support from the DA and communities. External participants were district,	ALP initiated and funded the activity	Participants witness effects of CC all around them and stated that communities knowledge and

				community members and national level stakeholders for first information and learning about the challenges of the community members to inform policy decisions	regional and national stakeholders including MoF, EPA, NDPC, NADMO, ILGS etc		adaptation to CC is apparent such as having shallow pits to serve as collection points when the dam is opened and practicing the dry season gardening and mix cropping as well. They indicated that they had learnt a lot and will further pursue and promote adaptation activities. Also the Western Region Coastal Foundation (WRCF) representatives indicated their interest in the PSP and cassava model
8 th -11 th Mar,2016	Tamale	ALP in collaboration with University of Reading, AIMS Ghana and GMet	PICSA Facilitators training	Understand the PICSA approach and likely areas for convergence as well as train district stakeholders and	University of Reading, AIMS Ghana, ALP staff, district level stakeholders including DoA, DPO's, NADMO,	ALP supported in the organization and financing the training	the training was useful and information such as the their crop water requirements, maturity dates

				ALP staff on the approach	Community development.		and probabilities of achieving the crop water requirement if sowing is done on particular dates proved to be essential and were integrated into the 2016 PSP
15 th –26 th Mar, 2016	Tamale	BRAVE 2 in collaboration with ALP	BRAVE2 Baseline data training and collection	To collect baseline data regarding underground water resources and its use for domestic and agricultural purposes and how its availability and use is impacted by CC	BRAVE2, ALP, community members, key informants, Community Monitors and enumerators	ALP supported in community mobilization, training of facilitators and facilitation of the data collection tools used	Data to be analyzed by University of Reading and shared with ALP
18 th Mar–17 th Apr, 2016	GTD, EMD	ALP	PICSA Step down training to community monitors	Train Community Monitors and selected community members on the PICSA approach and support them analyse their individual situation using the knowledge received so as to make an informed decision regarding	ALP, district stakeholders trained, farmers and CMs	ALP funded the training	participants expressed keen interest in the crop water requirement and crop varieties and as well the participatory budget which enable them determine whether they are making losses, breaking even or

				their livelihood			making profit and farming enterprises
23 March 2016	Coconut Grove Regency, Accra	Kasa/Private Enterprise Federation	Private Sector Climate Financing Dialogue (“Climate Adaptation: Unlocking the Potential of Business”)	To kickstart a dialogue across the public and private sectors towards responsible, private adaptation financing into the smallholder agricultural sector.	KASA, Private Enterprise Federation(PEF),ME STI, CSOs	ALP provided technical and organisational support to Kasa and PEF, enabling them not only to get the funding from BUSAC but to deliver a meaningful conference.	A coalition of interested parties set up the Ghana Climate Financing Forum (GCFF), to be hosted by PEF under an MoU with EPA. For now, ALP participates as an observer only.
13 th -14 th Apr,2016	Tamale	ALP-hosted in partnership with Gmet and MoFA	PSP Facilitators training workshop	To build the capacity of the new ALP and PATHWAYS staff on PSP as well a refresher for district officials to go back to their district and facilitate PSPs for 2016 farming season	ALP-trained PSP champions in MOFA, Gmet, CIS advisor from PCT and ALP Ghana team	ALP funded and supported in facilitating the training	PSP facilitation teams move to the respective districts and hold PSP workshops
18th-21st Apr,2016	Garu-Tempene District	DA in collaboration with MAC-F, MoFA, OXFAM,	District level PSP workshop	Facilitate stakeholders discussion of seasonal forecast received and	DA, PATHWAYS, ALP, DoA, Gmet, SARI-Manga facilitated the session and this was	ALP supported in facilitation	ALP district facilitator to monitor the dissemination of advisories

				development of advisories for livelihoods planning in the 2016 crop year	participated by selected community members (from over 40 communities), traditional rain makers, CMs, input dealers, district stakeholders among others		through communication channels identified by stakeholders
25 th -26 th Apr, 2016	EMD	DA in collaboration with ALP, MoFA, OXFAM, PATHWAYS	Organized district level PSP session	Facilitate stakeholders discussion of seasonal forecast received and development of advisories for livelihoods planning in the 2016 crop year	DA, ALP, DoA, GMet, facilitated the session and this was participated by selected community members, traditional rain makers, CMs, input dealers, district stakeholders and satellite districts among others	ALP funded and supported in facilitating the session	ALP district facilitator to monitor the dissemination of advisories through communication channels identified by stakeholders
25 th -26 th Apr, 2016	NKD	DA in collaboration with ALP, MoFA, OXFAM,	Organized district level PSP session	Facilitate stakeholders discussion of seasonal forecast received and development of advisories for livelihoods planning in the 2016 crop year	DA, ALP, DoA, GMet, SARI facilitated the session and this was participated by selected community members, traditional rain makers, CMs, input dealers, district stakeholders and satellite districts	ALP funded and supported in the facilitation of the session	ALP district facilitator to monitor the dissemination of advisories through communication channels identified by stakeholders

					among others		
26-28 April 2016	Ejisu, Kumasi	MoFA/GASIP with FAO	Establishment of regional CSA Platform	To get an overview of ongoing CSA initiatives by CSOs and to gather stakeholder inputs into the design of an anticipated FAO-funded MoFA district level project, linked to the Global CSA Alliance	MOFA, GASIP, FAO ,CSOs	ALP shared a write up on our experience and lessons learnt, as well as delivered an oral presentation	Establish district level CSA platform in the Nadowli-Kaleo district and use the platform to scale CBA approaches/mod els.
24th May, 2016	Accra	GMet in collaboration with ALP	Training of new staff of Gmet on PSP	To build the capacity of the new and young meteorologists recruited to manage GMET regional offices. Introducing PSP to new senior staff of GMET will ensure replication in their operational regions	ALP National Coordinator, 15 Gmet staff, Director of Gmet in-charge of research	ALP National Coordinator facilitated the PSP training	Gmet new staff trained on PSP to facilitate uptake and scale out

30th May-1st June 2016	Tamale	Non-ALP Event	Participatory scenario building workshop Volta River Basin	To develop skills and competencies among project partners and basin management stakeholders in the design and use of basin scenarios to inform decision making and planning for built and natural infrastructure portfolio for the Volta River Basin	CSIR-WRI/IUCN	ALP Team member participated in all activities and the experiences, skills and knowledge from participatory scenario Planning (PSP) were helpful for the discussions and the scenarios building for the White Volta River Basin.	With the support of the Water Resources Commission (Regional, Wa), the black volta river basin were to undergo similar scenario building. It was the inputs from the participants that led to the hosting of stakeholder dialogue involving EPA, WRC, community members, NADMO, DA , CHIEFS for the management of the BLACK VOLTA RIVER BASIN held the NKD assembly.
16th June 2016	Tamale	Northern Sector Agricultural Investment Coordinating Unit (NSAICU) of SADA	11th Session of the Northern Agricultural Sector Working group Meeting	to enhance learning and sharing among NGOs working in the area of agricultural in Northern Ghana. It was also a platform	The lead organisation was NSAICU. Participants included ALP, IFDC, ACDI/VOCA, WFP, APSP, in all there was 48 participating projects and INGOs	ALP shared its CBA model and strategies. Some organisations such as OXFAM and CCFC contributed to	CARE Ghana organised a separate platform with SADA to present different project models as implemented

				to promote networking of organisations to promote harmonisation and minimise the duplication of resources on same interventions among same target group		the discussions	by CARE Ghaba for
23rd June, 2016	Nadowli	ALP in partnership with the NKDA	Training of Assembly members on Climate Change in the Nadowli-Kaleo District district	Build capacity of Assembly persons on climate change concepts. This creates awareness among them on the impacts of CC to advocate for CAAPs development in all the communities and integration into district plans	ALP staff, DCE, Presiding Member, District Coordinating Director, Assembly persons	Training was organized and facilitated by ALP. The presiding member and DCE expressed appreciation to CARE/ALP for creating awareness among the Assembly persons on climate change as they are the representatives of their communities in the Assembly and this will them to good decision for	Assembly members trained on CC. Next action is to support communities present their CAAPs to Assembly and advocate integration into annual district plan

						them.	
24th June, 2016	Nadowli	NKDA, ALP&CSIR/CCA FS	Launch of Climate Smart Agriculture policy dialogue platform in the Nadowli-Kaleo District	To facilitate the sharing of CSA practices including CBA approaches among the district level institutions and organizations on the platform. The CSA platform will also be used champion goal 13 of the SDGs as CARE/ALP is national co-convenor of this goal.	ALP, CSIR/CCA FS, NKDA	The event was organized and funded by ALP	District CSA platform was successfully launched and hosted by the Nadowli-Kaleo district planning unit. The Northern Ghana Governance (NGG) project expressed commitment to support the platform and use it to implement their project.
30th June, 2016	Accra	ALP in collaboration with ABANTU	CSO Analysis of the National Budget Statement in the climate change perspective	Present findings on the analysis of the 2014-2016 national budget statement in the climate change and gender perspective for validation by CSOs and government institutions to inform advocacy on	ALP staff, ABANTU, ILGS, MOFA, the media etc	The event was organized and funded by ALP	A communique to be developed by a select team led by ABANTU and a press conference organized

				climate financing			
18 th July 2016	Bole, central Gonja, West Goja, Karaga, Meon, Salaga	Organized in partnership ALP, SARI and University of Utrecht	scoping visit to Fulani-pastoral enclaves	To meet stakeholders in the district to collect cases of conflicts and cooperation arising from adaptation initiatives	ALP . Others are GDCA, SARI	ALP is a partner and initiated the study. Both crop farmers and livestock farmers provoke each through their livelihoods activities in an effort to adapt how they also see their activities complementary . Chiefs and some state institutions seem to fuel conflicts between farmers and cattle herders. To ensure maximum benefits range lands are proposed to be established by	A Regional stakeholder workshop to be organized involving policy makers. To initiate policy on pastoralism in Ghana.

						government.	
30th August 2016	Wa	Upper West Regional coordinating council	Development partners annual review meetings	To bring all NGOs working within the region to provide updates on levels of implementation and achievement	The regional minister, The regional coordinating director, NGOs working with upperwest region	Shared reports and updates on the activities, planned, implemented and way forward.	The RCC applaud the contribution NGOs and different projects bring to augment developmental activities of the district.
6th Sept 2016		CARE sponsored event	CARE Ghana interface with SADA	The purpose of the meeting was to receive briefing on the genesis of SADA and its current visioning process. Understand the SADA master plan and key outputs, share CARE's key programs and innovations for impact with SADA for adoption, and mapping areas of program convergence for synergy/mapping	The CEO of SADA Dr Charles Abugri, the ACD/HOP for CARE Ghana. Other participants were the coordinator for the Milinium village project, Chief of Party of CARE Northern Ghana Governance Project(NGGP)	The National Coordinator of ALP shared information on PSP and CIC for climate information service	The National Coordinator of ALP to meet with the climate change unit of SADA for further understanding of the ALP/CBA approaches and models for adoption and scale out

				out ways of working.			
9th Sept. 2016	Tamale	ALP-hosted	INGOs inter-agency platform meeting	To receive update on climate finances in the Country from the MOF (NDA), Bring platform members to speed on current events on climate information and discuss how to localise SDGs to the district level	Was led the ALP with support from OXFAM and GIZ who are members of of the platform steering committee together with ALP	Meeting was sponsored by ALP. Administrative support was provided by OXFAM. Other paxs were SNV, ESOKO, IBIS, AIMS, GAC, CARE/PATHWAY, WINROCK etc	Follow up with esoko to tap their technology to improve CIC in ALP comunties - that is collect seasonal forecast, crop information, market prices, inputs prices, market information etc and develop messages and record into voice/local languages for playing at CICs
15th - 21st Oct. 2016	Kaleo and Nadowli	ALP hosted in partnership with CSA platform of the NKDA	Anti-Bush fire campaign with Traditional authority	To support traditional council come out with locally acceptable bye-laws to prevent bushfires	Led by Nadowli-Kaleo district CSA platform for technical and financial support from ALP. The meeting were attended by 74	ALP led the facilitation process, initiated the activity which is linked the CAAPs developed	All divisional chiefs were tasked to organize durbars to be supported by the district fire service, NADMO, DoA , the district

					divisional chiefs and 6 paramount chiefs. Other participants were DCD, NADMO, DoA and Fire service	some communities in the district. The DCD and chiefs lauded the anti-bushfire campaign initiated by ALP through the CSA platform and pledge to work to ensure success	police, NCCE to sensitize the communities against bush fires and draft community bye-laws on bush fires
19th Sept 2016	Accra	Non-ALP event	WISE-UP to climate stakeholders forum volta river basin	To share preliminary results and stimulate thinking the value results and their relevance/applicability to participants and also to update on the benefit functions results for the volta basin, update on modelling and trade off from last meeting as well as get guidance from participants for shaping further research to maximize relevance and applicability in	CSIR/IUCN	Regular member of the learning platform on the volta basin project. Brings ALP experiences on resilient livelihoods strategies, to bear on discussion of the Pwalugu mullti-purpose dam	The WISE-UP the climate change learning plaform provide reseacrh information and capacity building to policy makers within the Volta basin namely Ghana, and Burkina Fasso

				the volta basin			
29th Sept 2016	Nadowli	DA in collaboration with ALP	Development partners Interface meeting for the Nadowli-Kaleo District	To enable the DA and development partners share their experiences and harmonise activities so as to avoid duplication of efforts. It was also to create the platform for the DA to know all partners working in the district	DA, MP/majority Leader in Parliament, ADVANCE, ALP, MEDA, Pronet North, ACTION AID etc	ALP funded and supported the facilitation of the session	DA is to write to all development partners to solicit for support in their respective areas.
15th Oct 2016	Kaleo	CCSPP in collaboration with ALP	Engagement meeting on Bush fires prevention with Chiefs from the Kaleo Traditional Council (KTC)	To sensitize the Chiefs on the Climate Change especially Bush fires as driver of CC and to get their inputs and support for the fight against bush fires prevention	CCSPP core team members, ALP, Acting president of the KTC, GNFS (Safety officer)	ALP funded and supported the facilitation of the session	ALP DF to facilitate the organisation of community durbars on bush fires for the communities in KTA

16th Oct 2016	Garu	CARE Pathways project	International Rural women's day celebration	to Celebrate rural women's contribution to poverty reduction	PATHways project	ALP had women from the 4 ALP communities in Garu participating with one female community monitor from Kugri speaking to issues on Climate change and encouraging women to take up climate resilient/smart livelihood activities	Other participant commended the communitior on her timely speech especially cautioning women to avoid bush fires and forest depletion
10 th Nov, 2016	Tamale	Hosted by ALP	Presentations on conflicts and cooperations in Northern Ghana	To update stakeholders on the current status of CoCoon, activities carried out and plans	National Coordinator of ALP, ALP Project Manager, Sabastian, CSOs, MOFA (Upper East Regional, Garu), UDS East Mamprusi District Assembly, Tree Aid, CEEDA Ghana	Activity was organized and supported by COCOON under the ALP poject. Participants made presentations on conflict and cooperation issues in their communities because of adaptation.	Participants appreciated the meeting and express the need for them to look at the issues of conflicts and cooperation's they were working on.

						Inputs were made into presentations and participants understood better the assignment at stake.	
5 th Dec, 2016	Nalerigu	ALP in collaboration with VSLA Apex body and PARED	Meeting with VSLA apex body executives	Plan the next VSLA apex body General Meeting	ALP District Facilitator, VSLA apex body executives	Date, Venue, and agenda for the next VSLA apex body meeting was determined and the issues to be discussed during the meeting discussed.	The planning meeting was successful and the general meeting was scheduled for 28 th , Dec, 2016
11 th Jan, 2017	Nalerigu	VSLA Apex body in collaboration with PARED and ALP	VSLA apex body general meeting	Discuss issues affecting the VSLA apex body in the district. Review the interest rate of the apex body, elect new executives for the Apex body	Mr. Moses (PARED), Representatives of member groups of Apex body.	The apex body with support from ALP organized the activity. The interest rate for the apex body was reduced to 10% from 24% formerly charged per 6 months	Apex body executives planned a follow up on defaulters of the association

13th - 16th Feb, 2017	Wa	Hosted by OXFAM	Vulnerability and risk assessment (VRA) training workshop	The objective of the workshop was to build the capacity of Oxfam partners and allies on the theoretical and practical use of the VRA tool. The training was to enable participants learn and train other district and community stakeholders on the use of the tool. Moreover, the training was intended to build and develop resilience and adaptive strategies to mitigate the effects of the changing climate on livelihood activities, social groups, output and income levels of small-scale farmers in the communities.	OXFAM CRAFS officers, Pronet officers, District Planning officers, DoA staff	ALP officer participated actively in all plenary session and group works.	The VRA workshop was a valuable addition to the CARE CVCA approach. It opened the participants to a different way of assessing the Vulnerability and risks of community members. It offered that opportunity for learning and prioritizing risks and vulnerability based on gender, livelihood, and other categories. Participants are well equipped to conduct VRA in their respective project communities.
-----------------------	----	-----------------	---	---	--	---	--

23rd to 24th February 2017	Tamale	Hosted by ALP	Annual reflection meeting	Together with stakeholders, reflect on ALP's engagement with them, the work done to date to determine the successes, changes/impacts, challenges and the wayforward.	ALP staff, National and regional staff of EPA, NADMO, MoFA, MoF, ALP Boundary Partners (DA/DoA, Gmet, ABANTU), ILGS, CSOs, community monitors,	ALP funded the activity and participants indicated that is was participatory, informatory and learning and lesson sharing platform	Finalize report
8 th march, 2017	Nadowli	Hosted by the NKDA	PRESENTATION OF LOCAL ECONOMIC Development ASSESSMENT REPORT	To present the draft survey report on the Local Economic Assessment for district and community stakeholder inputs.	DCD-NKD, Budget, finance, social welfare, community development, information services department, GES, GHS, BAC, ALP DF, Community representatives, Disability association,	ALP was a critical stakeholder. ALP made inputs regarding development and climate change.	The DA was to incorporate the issues raised by stakeholders into the final report.
5 th April, 2017	Nalerigu	VSLA Apex body in collaboration with PARED and ALP	VSLA APEX body Meeting	To elect new executives to steer the affairs of the apex body	ALP district facilitator, Mr. Moses (PARED), VSLA Apex body executives, 2 members from member VSLAs	The general meeting was organized to conduct elections for the election of new executives for the apex body. This was done in accordance to the VSLA apex	Share results of election with VSLA APEX body members, new executives to meet VSLA APEX body members and as well update themselves with affairs and accounts of the

						body constitution.	VSLA APEX body
3 rd – 5 th April 2017	Wa	ALP in collaboration with the Nadowli-Kaleo district cooperative department	Apex body training and formation	To establish a Nadowli-Kaleo district apex body and then elect executives	ALP, VSLA cluster level executives, department of cooperative officer	ALP funded the activity and facilitated the process and supported communities with VSLA, cluster and Apex body materials	Participants are to hold meetings within their communities to sensitize community/ VSLA members on the importance of an Apex, also, the Apex body executives is to hold their meeting
4 th – 5 th April, 2017	Garu- Tempane	Non-ALP Event	GTD Performance Review Meeting	To update stakeholders within the district on the affairs of the district and as well the activities implemented, challenges and plans	District assembly	ALP supported the district financially to organize this activity	Report from event, communities to submit their reviewed CAAPs to the DA for integration into the district medium term development plans

6 th – 13 th April 2017	Wa, Bolga & Tamale	Hosted by ALP in partnership with ABANTU	JPs & AGPs training for CSOs	To train CSOs and Planning officers on the JPs and the AGPs so as to guide their development of adaptation proposals for funding from the GCF, AF and other climate change funding streams	ALP and ABANTU for Development, CSOs and Planning officers from the Upper West, Upper East and Northern regions.	ALP funded the activity and together with ABANTU for Development facilitated the training	Participants expressed how the training will go along way to help them incorporate climate change and adaptation issues into their medium term development plans and as well ensure that climate change projects implemented in their district comply to these practices.
10 th – 12 th April, 2017	Wa	Hosted by ALP	Review and Finalization of CAAPs	To review the CAAPs of the ALP communities in the Nadowli-kaleo district for presentation to the district assembly for integration in the district 2018- 2021 district medium term development plans	ALP and community stakeholders	ALP funded and facilitated the process	Finalization of the plans, printing and binding copies for presentation during the submission of the CAAPs to the Nadowli-Kaleo district assembly.
19 th April, 2017	Wa	Hosted by NKD CSA platform	Anti-Bush fire campaign follow up meeting with Chiefs	To agree on actions to be taken to curb bush fire in the	ALP	ALP funded and facilitated the process	Finalization of plans to curb bush fires.

		sponsored by ALP		Nadowli-Kaleo district			
24 th - 26th April 2017	Wa	Hosted by ALP and facilitated by NKD agric directorate	Animal Husbandry training for community monitors	To train interested community members as community livestock workers, so as to increase communities access to veterinary services	ALP, Veterinary officers of the Department of Agriculture in the Nadowli-Kaleo district	Alp funded the activity	
26th April, 2017	Wa	Hosted by ALP and facilitated in collaboration with MoFA and Gmet	PSP Trainer of Trainers session	To build the capacity of the new ALP and PATHWAYS staff on PSP as well a refresher for district officials to go back to their district and facilitate PSPs for 2017 farming season at the district and community levels	Gmet, ALP Staff, CSOs, DPOs AND DoA from Garu, East Mamprusi, Nadowle Kaleo, Lambussie, MOFA regional, Upper East, Northern Region and Upper West. Community monitors	ALP organized and funded the training as well as supported in the facilitation	Participants arrived at dates to organized their district and community level PSP and the ALP district facilitators are to supervise this and support where needed.
2nd - 5th May 2017	Tamale and Accra	Hosted by ALP and the evaluator Samantha	ALP final evaluation meeting with ALP staff and community, district, regional and national level stakeholders	This was meant to access the state of impact of ALP on its boundary partners, operational sites, CSO/INGOs. To determine the most significate impact of ALP,	ALP, Evaluator, CSOs, INGOs, regional, district and community level stakeholders	ALP Organized and funded the activity and participants indicated their impressions about the project which will be in the	Organize stakeholders for phone call interviews with evaluator

				learnings and challenges		evaluation report	
1st – 13th May, 2017	ALP and non-ALP sites	Hosted District and community level stakeholders, CSOs and other projects	Dissemination of seasonal forecast and PSP advisories	To disseminate the PSP advisories to stakeholders	ALP sites, PATHWAYS, OXFAM, District level stakeholders etc.	ALP organized the PSP training session from which advisories were developed for both facilitation of PSP at the district and community level and as well the dissemination of advisories	Inform facilitators to support the community and district level PSP and support in the dissemination of the advisories
16th - 19th May 2017	Duong, Chaang, Kanyini, Takpo, Nanville and Zambogu	Hosted by ALP with support from the NKD and its decentralized departments and GMet	Community exit meetings	To announce the official closing of the ALP to communities, hear from communities their experience with ALP and also strengthen communities linkage to the district and regional level stakeholders so they are able to source support when needed and	ALP, NKDA and decentralized department staff, community elders and members	ALP supported the communities organize the exits and in general communities were impressed by the contributions of ALP in the form of cassava cuttings, capacity buildings and	Communities are to prepare for the exit meeting which the district facilitator will help them in this regard.

				as well help sustain the ALP interventions in the communities and as well build on it.		they are now more informed on climate change, they indicate that they have better access to farm inputs especially fertilizer and improved seeds (which they had limited knowledge on) due to the role ALP played in linking them to the DoA, SARI and other input dealers.	
19th May, 2017	Nadowli	Hosted by Chiefs in collaboration with the NKDA	Anti-Bush fire communique press release	To share with the general public the outcome of the anti-bush fire meetings and as well the decision taken by the Chiefs to curb bush fires in the district	Chiefs, ALP, Ghana National Fire service from Nadowli	ALP funded and supported in the organization of the activity	The chiefs intend to have by-laws gazette and enforced and also announce this on the CSA platform in the NKD