

Adaptation Learning Programme for Africa

(ALP)

A REPORT ON THE ANTI-BUSH FIRE CAMPAIGN IN THE KALEO AND NADOWLI TRADITIONAL COUNCILS ON THE 19TH APRIL 2017

Stakeholders at a bush fire campaign: DCD,
NADMO, NC of ALP/assemply men, GNFS

Women making presentation at the community durbar in Chaang





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1.0 Background

The Adaptation Learning Programme (ALP) for Africa has been implemented in Northern Ghana since 2010 with the prime aim of building the adaptive capacity of the vulnerable populace to adjust the negative impact of climate change variability and change. Several strategic interventions has therefore been rolled out in a quest to achieve this aim. To this, one of ALP approaches is to build the organisational capacity of institutions, CSOs, and Community level organisations in dealing with the impact of climate change. In the Nadowlikaleo District of the Upper West region, ALP supported the establishment of the Climate Change Science Policy Platform (CCSPP). The CCSPP is mandated to replicate and upscale the CBA approaches in the District. The CCSPP therefore identified Bushfires at the community as a threat to climate change adaptation and came up with a bottom-up approach to tackling bushfires. Bushfires occur widely and are very pervasive and extensive in the Nadowli-Kaleo District. It affects the composition and density if vegetation, frustrates the efforts at sustainable development, and threatens the future survival of the people by contributing immensely to desertification and general environmental degradation. According to the CCSPP, the efforts to fight bushfires at the community level cannot achieve through external actors but through community level and community motivated efforts. They therefore came out with a comprehensive plan of activities with the Support of ALP and the ALP team to tackle bushfires at the community through traditional leaders and community members support. To this end, two engagement meetings were held with chiefs and elders from the Kaleo and Nadowli Traditional Councils. To purpose of these meetings was to get the support of the chiefs in the fight against bush fires and also to build consensus and provide that avenue to deliberate the appropriate ways of tackling bushfires in their respective communities.

2.0 Methodology of the Meeting and Participants

A participatory approach was used at the engagement meetings through the use of plenary discussions. This was to give all participants the opportunity to contribute the views to the discussions. Participants in these meetings included Paramount Chiefs, Divisional Chiefs, sub-Divisional chiefs, CCSPP representatives, Ghana National Fire Service, The District Coordinating Director, NCCE, CHRAJ, and Planning Unit of the District Assembly, NADMO and the ALP team (Mr. Romanus and Charles). All the district level stakeholders attended to assist the traditional Leaders fashion-out ways of preventing bushfires in the communities.

3.0 Engagement Meetings with Chiefs from the Kaleo Traditional Council

3.1 Introduction

The first engagement with Chiefs from the Nadowli-Kaleo district on bushfires prevention was with the Kaleo Traditional Council which took place on the 19TH APRIL, 2017at the Kaleo Traditional Council Hall. The meeting was organised by CCSPP of the Nadowli-Kaleo District with support from the ALP district facilitator. In attendance was the Project Coordinator of ALP-GHANA (Mr. Romanus), the District Facilitator of ALP-Nadowli-Kaleo

District, CCSPP team, NADMO, GNFS, the Kaleo Traditional council secretary, Chiefs and their Elders from the Council. It started at about 10:00am with an opening prayer said by the Regent of Gbankor Mr. HamiduZumbeng.

As in the agenda, proceedings continued with the introduction of participants. This was done through self-introduction. The welcome address to this very important meeting was delivered by the Acting President of the Traditional council (The Chief of Kanyini) as the chairman of the program. He briefed the audience on the purpose and importance of the meeting. He explained that changes in the climate which is now worrying issue to all communities within the district and globally should be the concern of every stakeholder. He further explained thatthe perennial bush burning in the communities is contributing to the depletion of the natural resources and the reduction of soil fertility. He also stressed that it is as the result of bush burning that the rainy pattern had reduced in the area for farming activities. He admonished all participants to join hands to stop bush burning or minimize it in their respective communities. He thanked all participants for coming despite the late notice and entreated their active participation in the meeting.

The National Co-coordinator of Adaption Learning Programme (ALP) Mr. Romanus Gyang on his term brief the Traditional Council on ALP in the district. He explained that ALP was being implemented in three countries including Ghana. He however, the first phase of ALP was in the East Mamprusi and GaruTempane Districts and have extended by two (2) years to include the Nadowli-Kaleo District. Six (6) communities in the district namely Zambogu, Takpo, Nanvilli, Kanyini, Duong and Chang are benefiting directly from the project interventions in the district. He reiterated that the attitude of many people towards the environment in the district was not a good. He further explained that our youth migrate these days to the southern part for greener pastures because of the reduction in the soil fertility partly o mainly due to bush burning practices all over the district. He therefore called for support of the Chiefs in the fight against bush fires. He mentioned some areas in the region are already benefiting from their environment because of their adherence to non-bush burning. He also explained that the efforts of the Chiefs, elders and people of the Chaang Community in fighting bush burning and deforestation can be a shining example for all communities to emulate. He told no external factor/agent can help address the bushfires menace in their communities as past measures have all failed years before. He therefore called for the support of all chiefs to help arrest the incidence of bush fires before it devastates our environment.

A word was taken from the Representative of GNFS from the district level. He explained that this meeting was welcome news and had come at the right time. He bemoaned their outfit's failing efforts in fighting bush fires in the district. He said that the bottom-up approach would only be effective if the support of all chiefs in the district, he therefore called for their unflinching support. He explained that, previous efforts had failed because the communities were not adequately drafted in the actions plans. He mentioned that he was passionate about bush fire and its destructions in the district and expressed he willingness to assist the communities fight bushfires.

4.0 Plenary session

A plenary session was now opened for the participants to deliberate on the causes, effects and plausible measures for bush fires prevention in their respective communities to be specific and the district in general. The Chiefs took turns to express their views. The main issue to discuss was on the engagement with the traditional council. The chiefs of Gyilli, Naro, Gbankor, Sombo, Samatigu, Kaleo-Buu, Kahaa, Jang, Piree, Papu mentioned prevention of bush burning as key in the district, which they turn as "sickness to our people". They expressed that they were also getting their worried about the alarming rate of bushfire and its effects on their livelihood and consequences for the future generation yet unborn. The chief of Gyilli called for a holistic approach in fighting bush burning. He explained that one community cannot stop this practice in the district. The chiefs lamented that, people just burn the bush for unacceptable and tangible such search rabbits and bush mice. The Chief of Sankana also added his voice to the discussion and pledges his support for the call on the chiefs to help the menace. The Chief of Kahaa previous were not yielding good results because culprits arrested were left free to go by politicians. The Chairman mentioned that bush fires culprits should be dealt with at the community level, he was supported by many of the chiefs. They explained if bye-laws on bush-fires could be enacted to stop the practice in the traditional council with equal fines to culprits would be the right way to go. They also explained lack of effective bye-laws was also a contributing factor to bush burning. Some chiefs also blamed the presence of the Fulani in their communities for burning the bus to enable the pastures grow faster with the early rains. Cigarette smoking was mentioned and careless handling of fire at the farms and at home.

Summary of some of the causes of bush burning as mentioned by the participants as follows:

- Charcoal burning
- Honey tapping
- Cigarette smoking
- Hunting
- Fulani herdsmen
- Farmers

On the effects of the bush burning in the district, the Chief of Sombo mentioned, the dwindling fortunes in the agricultural livelihood can all be attributed to bush fires. The Chief of Jang explained that bush burning was a contributing cause of climate change in our part of

the district. He stressed that the poor rain patterns are all evidence of the effects of bushfires in the district. Economic trees like the Shea, dawadawa, cashew, were all suffering from the negative impact of bushfires. The chiefs explained the deterioration of the soil can be traced to persistence bush burning. The Chairman, also explained their water bodies were dying owing to bush fires.

However, on the plausible measures to put in place in order to curb or minimize these problems, all participants were pointing fingers on enactment and enforcement of bye-laws. The Chairman pledge his support for all communities. They explained that be-laws and committees would be appropriate since all community members know themselves. They however complained they used be committees but because these committees were not well-resourced, they could not function. They chiefs called the support of support GNFS and the representative present gave the participants his contact and the office and pledged to avail himself to all communities.

Summary of Measures to tackle bushfires at the community level as mentioned by participants

- Enactment of bye-laws
- Clearing around economic trees
- Creation of fire belts
- Sub-chiefs and elders should be called on to support the idea
- Use of fire volunteers/committees.

5.0 RESOLUTION ON ACTIONS TO BE TAKEN

A resolution was passed by all the chiefs on the following and all participants pledge to support in the fight against bushfires.

- **\$** Bush burning should be stopped in the traditional area.
- ❖ There should be sensitization of communities and on cluster bases/communities. Community durbars to be organized.
- Divisional chiefs to support in reducing bush fires and to call their subjects to meetings.
- ❖ Punitive measure need to be agreed on at the divisional levels and council levels.
- ❖ Council to enact bye-laws by the acting president that will be binding on all communities in the traditional area.
- Some of the punitive measures to be taken include:
 - 1. Divisional chiefs, will notify council to act on persons who fail to comply
 - 2. The issue of early burning should be look at.

6.0: Closing Remarks and Way Forward

The Chairman of the Council, thanked all participants for their active participation and called on them to all organise their respective community durbars and report to the council after the durbar in a months' time. The national coordinator of ALP in his closing remarks also thanked all the chiefs for honouring the invitation and pledged the support of ALP for all communities. He called on the communities to inform the ALP on dates they will like to organise the durbars so that the ALP team could support them in the facilitation of the durbars at their communities. The meeting came to a close with a closing prayer.

7.0 Engagement Meetings with Chiefs from the Nadowli Traditional Council

7.1 Introduction

The Anti-Bush Fires Campaign meeting with Chiefs from the Nadowli Traditional Council organised on the 21st April, 2017. The meeting started at 10:50am with an opening prayer by Mr. Martin Bondiyiri an agricultural input dealer who also doubles as a Sub-Chief of Nadowli. The opening preceded participant introduction facilitated by the National Coordinator of ALP. He created the indulgence of the Chiefs and ask them to do self-Introduction. The meeting was chaired by the Paramount chief of Takpo - NaaWidana II and who is also the Acting President of the Nadowli Traditional Council.

In the Chairman's welcome address, he took the opportunity introduced himself as the Acting President of the Nadowli Traditional Council conferred on him by the Regional House of Chiefs. He admonished all chiefs to assist him in his new role so the Chieftaincy institution within the council will be run smoothly. He briefed members on the significance of the meeting and place much emphases made on bush burning in the district. He noted that climate change has become real and the earlier measures are taken to arrest it the better. He explained that the communities need to desist from certain practices such as bush burning and trees felling if not the district will be like a desert in the near future and will pose serious threat to the survival of our next generation. He said if the people of Nandom-Goziiri as a case study, can stop bush fires, the people of the Nadowli Traditional can also do if they are committed. He therefore called on all chiefs to be committed in the fight against bush burning.

The District Co-ordinating Director present at the meeting used the opportunity to introduce himself as a coordinating Director of the District for the first time. He said he planned to visit most of the communities but that the meeting was timely for him to interact with the Chiefs.

In his word, he touched the fact that the district rely so much on agriculture and as such any practice that will militate against agricultural enhancement should not be allowed. He indicated to the participants the effects of bush fires as low soil fertility. He admonished all chiefs to support the CCSPP and the assembly in the Anti-Bush fires campaign. He thanked the National Co-ordinator of ALP and his team in assisting the district to reduce the menace of bush fires and related disasters in the district. He called for more collaboration so that the assembly can achieve its vision.

The National Co-ordinator of ALP-Mr. Romanus Gyang in his opening remarks indicated that, the past and present is not the same as the soil fertility reduce almost all the time because of the attitude of the people towards environmental degradation. He took the opportunity to explain the project – ALP to the participants. He indicated that the first phase of the project was implemented in the two districts in the Northen and Upper East regions namely East Mamprusi and GaruTempane respectively for the period of five years. He therefore explained they are building on the successes of the first to extend the project to the Nadowli-kaleo District of the Upper West Region. He stated that however that ALP was implemented directly in six communities namely Takpo, Chaang, kanyini, Zambogu, Duong and Nanvilli. He explained the purpose of meeting to the participants and asked for their active participation. He reiterated that, the CCSPP with support from ALP see bush burning as a major threat to the livelihood of the people and will therefore want to use a bottom-up approach through the chiefs and community elders in addressing it. He informed the chiefs that a similar meeting had been held at Kaleo traditional council a week ago for the Chiefs from the kaleo Traditional Council. Chiefs has been identified as important stakeholders in the fight against bush fires and hence this meeting.

The district commander of the Ghana National Fire Service in his opening remarks thanked CARE international for this meeting and he said he sees the CARE as complementing its efforts and was grateful to the organisation. The lauded the idea of bringing Chiefs to deliberate on ways and means of fighting bush fires. He said their department is incapacitated to fight bush fires because of resources. He said that, they had planned to train Community fire volunteers in most of the communities. He indicated that, even though they are laws regarding bush burning, it is always difficult to enforce because culprits are not easily identified and called on the chiefs to let the GNFS in fighting bush fires. He called on them to always contact them in case of bush and domestic fires. He gave his personal and office to the participants. In attendance of this meeting were CHRAJ, NCCE, GNFS, CCSPP, ALP TEAM, NADMO, DCD and Chiefs.

8.0 Plenary session on bush fires

During the plenary session, the chairman of the meeting Takpo Naah Widana II briefed the house on good practices/happening in other areas even within the region. He said bush fires are worrying to farmers at the community levels and if that could be stopped it will improve the soil fertility. He mentioned people were serious about bush fires. He further stressed that

traditional leaders were lacking the capacity to bite as many people do not obey their orders, he complained that, this is because many chiefs in the area are not financial resourced or illiterates. Subjects do not respect their followers again. He called on the district assembly to assist the chiefs to deliver their mandate. He attributed bushfires to soil infertility and destruction of farm produce and economic trees. Contributions from Dapuorinaah, Nadowli–Sorikuong, Charipkong Nayirinaah, Langborizu and others indicated that there have be laws biding bush fires for the past 25 years that they need to reactivate and resource the existing Fire Volunteer Groups to support in the fight against bush fires.

Some of the causes of bush fires mentioned as identified by the participants were;

- **❖** Activities of Hunters
- Charcoal burning
- Honey tappers
- Cigarette smokers
- Fulani Herdsmen

They chiefs complained that, bushfires as a major hindrance to their livelihood as farmers. The chief of Dapuori, said someone's rice farm burnt due to uncontrolled bushfires in his community. He stressed there are several instances were many farmers lost their farm produce to bush fires. The Chief of Nator-Longborizu also said, when people engage in bush burning they end up contributing to the drying up of the water as there is no shed to protect the water.

The chiefs identified one of their major problems in fighting bush fires at political interference they explained anytime culprits are arrested and sent to the police for punishment, politicians use their power to free them. They however came up with the following measures to help reduce the high incidence of the perennial bushfires in the Nadowli-Kaleo District. These included:

. Measures to reduce the practices

- Control burning
- **&** Early burning
- Involvement of Fulani herdsmen
- Enactment of bye-laws
- Resourcing Fire Volunteer committees/Groups
- Community durbars and among others.

The participants suggested that early and controlled burning can help reduce the effect of bush fires in their respective communities. They explained that through early burning, the bush are always not dried enough to blaze high fires and as such the second burning will not be hazardous. On the issue of controlled burning, they explained that many farmers don't wait to quench the fire in their farms and because of this the fire may burn other people

farms. They admonished people to demarcate areas they want to burn and actually make sure only those places are burnt actually.

On bye-laws, they said even though bye-laws exist on bush fire, many of the people are not aware and there was the need to enact and enforce new laws at the community level. This they said will keep the community aware since they will be part of the process. They were therefore asked to organise community durbars on bush fires.

9.0 RESOLUTION ON ACTIONS TO BE TAKEN

A resolution was passed with support from the Chairman on the following areas and actions;

- ❖ That culprits should be punished at the community level
- ❖ Meeting of stakeholders to assist reduce the problem in the area.
- ❖ That bush burning should be stopped completely
- ❖ Arrest culprits and hand over to District Assembly and Police
- ❖ On the spot sine of GH¢30.00 and GH¢20.00

10.0 Closing Remarks

The chairman thanked CARE international for their intervention and said this is the right time for this exercise and all stakeholders should be on board to fight this menace. In concision both traditional councils agreed on the ending of November, 2016 to submit their resolution to the District Assembly and CARE internal as evidence of their meeting at the divisional and community levels and to compile. The National Coordinator thanked all the participants for honouring the meeting.

11.0 COMMUNITY DURARS ON ANTI-BUSH FIRE CAMPAIGN IN THE NADOWLI-KALEO DISTRICT

Following up from the engagement meetings at the Traditional Council level, all communities were to organise a community durbar on bushfire campaign to strategize ways and means of fighting bushfires in their respective communities. Specifically, they were to enact bye-laws at their respective communities. To this end, ALP supported some of these communities in the community durbars.

11.1 Methodology of the Community Durbar

The Anti-Bushfire community durbar adopted a participatory approach involving all communities' members and traditional leaders, district assembly representatives – DCD, NADMO, The Police, GNFS, and the ALP Team (NC, District Facilitator). ALP team developed the facilitation questions for the durbar. There were three main questions to be answered by Women group, Elderly men Group and Youth Group. We were to get the different perspective of all categories on causes, effect and how to fight bush fires. Groups were given the opportunity to make presentations. There a plenary session to enable the community agrees on the way forward. A general sanction was to be agreed by all groups. These questions were:

- 1. What are the causes and effects of bush fires in your community?
- 2. Why is it difficult to stop/prevent bushfires in your community? What are the barriers to bushfires prevention?
- 3. From now going, how will you remove these barriers in order to prevent bushfires? What actions are you to take to prevent bushfires? What sanctions would you recommend for culprits of bushfires?

Communities were linked to this District Assembly for support in the organisation of the community durbars by the ALP team. The district assembly agreed on request to assist the CCSPP representatives, The GNFS and the Police to attend the community durbars. They DA was to do this by providing fuel or vehicles for the durbars. The ALP team was invite to facilitate the community durbars in 7 communities of the district. These included Gyilli, Sombo, Peree, Jang, Jang-Guase, Zambogu, Tibani and Chaang. All these communities are from the Kaleo Traditioanl Council. There will be a follow up meeting for the all communities to share their results and experiences for the year for learning. This will also enable the chiefs to adopt the good practices for bushfire prevention in the district. The Table below shows results of the community durbars.

Bushfire campaign: Community durbars

Community/group	What are the causes and effeccts of bush fires in your community?	Why is it difficult to stop/bushfires in your community? What are the barriers?	From now going, how will you remove these barriers in order to prevent bushfires? What actions are you to take to prevent bushfires? What sanctions would you recommend for culprits of bushfires?
Gyilli EEDERLY MEN	Causes 1. Charcoal burning 2. Fulani herders 3. Cigarete smokers 4. Hunters 5. Enemies Effects 1. It is destroying our lands 2. Bush burning makes our soil infertile 3. Bushfires destroy economic trees 4. Destruction of the environment- small trees are dying	Lack of unity among community members Absence of bye-laws	 Actions To be Taken The landlords should come out with bye-laws Invoke the gods of the lands of the community to punish offenders We should have fire volunteers Sanctions Anyone who is caught burning the bush should be made to bring a sheep and three fowls
Gyilli EDERLY WOMEN	Causes of bus fires 1. Hunters 2. Cigarette smokers 3. Travellers 4. Wood charring/coal burning 5. Fulani herdsmen 6. Women that want to harvest fuel wood 7. People that attempt to kill or drive away wild animals in our living surrounding like pythons Effects of bushfires	 Difficulty in identifying culprits Communities are linked by bush and it is difficult to control neighboring communities activities The misconception that we need to burn the bush to chase away wild and dangerous animals like snakes and pythons 	Actions to be Taken 1. We need chemicals that can deter or drive away wild animals like poisonous snakes from our living environment 2. Create fire belt around houses 3. We should all be vigilant and report culprit to the chief and Tindana 4. Formation of bye-laws

	 Destruction of economic trees e.g shea trees, mango, dawadawa Destruction of farm produce We suffer in the cold season- intensive cold leading to diseases Leading cause of soil infertility Snake biting our children that go to look for wild meat Bushfire cause dry spells 		Recommended Sanctions A goat and a fowl to the community elders
Gyilli Youth Group	Causes 1. Because of bush meat (hunting) 2. To prevent/avoid snake bites 3. Because of honey 4. Charcoal burning 5. Smoking of cigarette	 Absence of bye-laws Continuous charcoal burning for livelihood support Smoking of cigarette Land preparation for farming Burning tiger nut farms during harvesting 	 By forming fire volunteers By making fire belt By enacting bye-laws Minimise or stop commercial charcoal burning Send bye-laws to District assembly for support Sensitization of school children
Sombo Ederly women	Causes 1. Hunting 2. Cigarette smoking 3. Through women searching for fuel wood Effects 1. Destruction of economic trees e.g. shea, mango, dawadawa 2. Destruction crops produce like maize, rice, yams, millet 3. Leading cause of heavy wind storms 4. Cause of lack of rains 5. Poverty 6. Destruction of small trees	 Ignorance Lack of understanding among community members "no nuo" insatiable taste for wild meat Fear of wild animals in the bush and arm robbers 	Actions to be taken 1. Unite community to fight bush burning- men and women 2. Formulate bye-laws 3. Establish a committee to monitor bush burning Sanctions Charge a fine of GH50.00 for the purchase of a plastic chair and Gh10 for the committee
Sombo Youth	Causes 1. Hunting	 Poverty Because culprits are not punished 	Actions to be taken

	 Travelers Honey hunters Cigarette smokers Cooking in the farm Effects		 Form a committee Train and equip the committee Motivate the committee with financial rewards
	 Soil infertility Poor rains Deforestation Drying of water bodies Destruction of crop produce stored in the farm 		Sanctions Cane culprits 50 lashes
Sombo	Causes 1. Hunting 2. Cigarette smoking	 Ignorance Lack of understanding among community members "no nuo" insatiable taste for wild 	Actions to be taken 1. Unite community to fight bush burning- men and women
Ederly women	 3. Through women searching for fuel wood Effects 1. Destruction of economic trees e.g. shea, mango, dawadawa 	meat Fear of wild animals in the bush and arm robbers	2. Formulate bye-laws3. Establish a committee to monitor bush burning
	 Destruction crops produce like maize, rice, yams, millet Leading cause of heavy wind storms Cause of lack of rains Poverty Destruction of small trees 		Sanctions Charge a fine of GH50.00 for the purchase of a plastic chair and Gh10 for the community
Jang Youth Group	Causes 1. Hunting 2. Fulani herdsmen 3. Irresponsible controlled-bush burning 4. Cooking food at the farm 5. Cigarette smoking 6. Charcoal burning	 Lack of unity No community bye-laws governing bush burning Ignorance of the effects of bush burning Carelessness in handling naked fire Lack of educative programmes on 	 Fire Volunteers should be made available Educating our households members on the effects of bush fires There should be educative programs on environment in the community

	 Dumping fire in the refuse damp To expel snakes Effects It renders the land infertile and makes the land compact It makes if difficult to get grass to feed animals Destroys economic trees e.g shea trees, mangoes Destruction of farm produce 	bush fires and environmental protection in the community	 4. Enact and Enforce bye-laws 5. Enhance community unity 6. Creation fire belts before burning gardens and farms 7. There should rewards to rewards to motivate other people/volunteers to also report and arrest culprits Sanctions Culprits should be caned, fined, or imprisoned
Jang Elderly Women	Causes 1. Charcoal burning 2. Fulani herders 3. Cigarete smokers 4. Hunters 5. Enemies Effects 1. It is destroying our lands 2. Bush burning makes our soil infertile 3. Bushfires destroy economic trees Destruction of the environment- small trees are dying	 Lack of unity among community members Absence of bye-laws 	1. The landlords should come out with bye-laws 2. Invoke the gods of the lands of the community to punish offenders 3. We should have fire volunteers Sanctions Anyone who is caught burning the bush should be made to bring a sheep and three fowls
JANG Elderly men	Causes 1. Hunting 2. Charcoal burners 3. Smokers 4. Burning to pick shea nuts	 Lack of bye- laws Lack of community volunteers Poverty 	Preventions 1. Set Bye- laws 2. Planting of more tree 3. Education 4. Create fire belt before burning

	 5. Land preparation 6. Fulani & cattle owners 7. Hot ashes thrown outside 8. Cooking at farms Effects 1. It burns our crop 2. It burns trees with economic importance 3. Land losses it fertility 4. Land dries quickly 5. Late rain 6. Wild animals moves away Strong wind can easily destroy homes 		 5. To get volunteers (government should pay for their services) 6. Tizaabunyeni (Unity of purpose) 7. Stop cutting and gathering of a lot of fire wood Sanctions Offenders should be fine to bring: sheep, dog, goat, fowls and GHC 100.00 for the chief
Chaang	Causes	Poverty	Preventions
Men	 Hunting of wild animals Cigarette smokers Wickedness Farmers burning to clear their land Fulani/ cattle headers Children setting fire for fun Charcoal burners Effects It destroys the vegetation covers It destroys food stuff Lost of soil fertility It destroy fruits It brings about poverty It causes water bodies to dry up 		 Pass by- laws on bush burning Mass hunting must stop Formation of fire volunteers Invoke the wrath of the gods Using the pulpit to preach about the effects of bush burning on our lives Sanctions Offenders should be fine to bring: sheep, dog, goat, fowls and GHC 100.00 for the chief
Chaang	Causes	1. We can't stop people from smoking	Prevention
	1. Charcoal burning	2. Lack of unity among	1. Bye- laws (To prevent cutting of

ELDERLY WOMEN	 Wood honey hunting Cigarette smoking Hunting "Hot ash"- mishandling of fire in the community Wicked people Careless burning of bush to create fire belt Effects Reduces soil fertility Destruction of economic tree- shea, dawadawa Destruction of crop produced 	neighbouring communities 3. "No nuong" People desire for bush meat 4. Habits- people used to burning the bush	fresh wood) 2. Communities dialoguing (To meet and discuss how to stop bush fires) 3. Committees should be set up to focused attention on ending bush burning 4. Train & equip committees to fight bush fire 5. Punish hunters found in burn environment Sanctions 1. A week in police cells
Chaang	4. Too much cold Causes	Poverty brings about charcoal	Preventions
Youth	 Hunting Cigarette smoking Charcoal burning Dumping of fire in the farm Irresponsible control burning Cooking in the farm Effects	burning 2. Bush meat is seen as a delicacy 3. Non-involvement of Fulani in community decision making 4. High level of favouritism 5. Lack of community bye- laws 6. Lack of unity among surrounding communities 7. Someelders break the law and go free of charge	 Institutes of bye- laws by the land lord Punish those who burn the land Community fire volunteers Education
Elderly Women Peree	Causes 1. Hunting 2. Cigarette smoking 3. Mentally insane people 4. Charcoal burning 5. Fear of staying in the farm when the farm is highly forested	Ignorance- Some people not having any idea on the dangers of their actions by burning the bush Some people are wicked	Prevention 1. Formulate bye- laws 2. Sensitize the whole community, especially the youth & children on the dangers of bush burning 3. Be watchful on our activities 4. Form fire task force/ committee

	 Destruction of crops produced e.g. Rice, millet Destruction of economic trees; shea, dawadawa Destruction of our land – Causes of soil infertility Cause poverty & hunger 		5. Call the Wrap of the gods Sanctions 1. Purchase 20 pots of pito One plastic chair
Youth Group Peree	Causes 1. Charcoal burning 2. Fulani herders 3. Cigarete smokers 4. Hunters 5. Enemies Effects 1. It is destroying our lands 2. Bush burning makes our soil infertile 3. Bushfires destroy economic trees 4. Destruction of the environment- small trees are dying	Poverty Unemployment of the youth	1. Planting of trees 2. Construction of fire belts 3. Form firefighting volunteers SANCTIONS Culprits will payment GH10.00 to Landlords, GH 10.00 to the Chiefs and GH10.00 to fire volunteers Plant and nurture 5 trees
Peree Elderly Men	 Destroys plantations Loss of soil fertility Reduction in rainfall Loss of life & properties 	 There is no protected material in the community. Example; helmet, goggle, fire extinguisher The land is always two dry to catch fire No contact with Fire personnel's to responds to bush fire 	 Placing fine (GHC 1,00.00) on offenders Chief to fine offers (GHC 5.00) plus a cork Offenders should be made to sweep the land
Janguase Men	Effects of Bus fires 1. Destroys plantations	There is no protected material in the community. Example; helmet, goggle, fire	Sanctions 1. Placing fine (GHC 1,00.00)

	 Loss of soil fertility Reduction in rainfall Loss of life & properties 	extinguisher 2. The land is always two dry to catch fire 3. No contact with Fire personnel's to responds to bush fire	on offenders 2. Chief to fine offers (GHC 5.00) plus a cork 3. Offenders should be made to sweep the land
Janguase Youth	Causes 1. Hunting 2. Charcoal burning 3. Smokers 4. Dumping fire on earth 5. Cooking on the farm 6. Irresponsible control burning 7. Honey hunters 8. Wickedness and jealousy Effects 1. Interns cold 2. River dries up 3. Decrease yield of sheanuts 4. Decrease soil fertility 5. Destroys the vegetation 6. Decrease rain fall 7. Poverty 8. Land becomes dry and compact	8. Poverty brings about charcoal burning 9. Bush meat is seen as a delicacy 10. Non-involvement of Fulani in community decision making 11. High level of favouritism 12. Lack of community bye- laws 13. Lack of unity among surrounding communities 14. Setting offenders free of charge	Preventions 4. Institutes of bye- laws by the land lord 5. Punish those who burn the land 6. Community fire volunteers 7. Education
Janguase Women	Causes of bus fires 1. Hunters 2. Travellers 3. Wood charring/coal burning 4. Fulani herdsmen 5. Women that want to harvest fuel	 Difficulty in identifying culprits Communities are linked by bush and it is difficult to control neigbouring communities activities 	Actions to be Taken 1. Create fire belt around houses 2. We should all be vigilant and report culprit to the chief and Tindana 3. Formation of bye-laws

	wood 6. People that attempt to kill or drive away wild animals in our living surrounding like pythons 7. Cigarette smokers Effects of bushfires 1. Destruction of economic trees e.g shea trees, mango, dawadawa 2. Leading cause of soil infertility 3. Snake biting our children that go to look for wild meat 4. Bushfire cause dry spells 5. Destruction of farm produce 6. We suffer in the cold season- intensive cold leading to diseases		Recommended Sanctions The tindana will decide
Zambogu Elderly men	1. Hunting 2. Charcoal burners 3. Smokers 4. Burning to pick shea nuts 5. Land preparation 6. Fulani & cattle owners 7. Hot ashes thrown outside 8. Cooking at farms Effects 1. It burns our crop	 Lack of bye- laws Lack of community volunteers Poverty 	Preventions 1. Set Bye- laws 2. Planting of more tree 3. Education 4. Create fire belt before burning 5. To get volunteers (government should pay for their services) 6. Tizaabunyeni (Unity of purpose) 7. Stop cutting and gathering of a lot of fire wood Sanctions
	2. It burns trees with economic importance3. Land losses it fertility		1. A fined of GHC100.00, 1 goat, 2 fowls & one bottle of akpeteshi to be

Zambogu Youth	 4. Land dries quickly 5. Late rain 6. Wild animals moves away 7. Strong wind can easily destroy homes Causes 1. Charcoal burning 2. Cigarette smoking 3. Hunting 4. Honey tappers Effects 1. Excessive heat 2. Damage to trees with economic importance 3. Loss of soil fertility 4. Burning of farm products Water bodies dry up quickly 	 Nearby communities and travellers cause bush burning Recalcitrant's people Careless people who refused to stop fires at their farms during land preparation Wild wind 	Prevention 1. Every community members should be watchdog and report anybody to the elders Sanction 1. Offenders should be fined (1 sheep, 2 fowls, and snap bottle) 2. Chief should collect a fine of 1 white fowl and amount of GHC 12.00
Zambogu Women	 Causes Travellers Charcoal burning wood honey hunting Cigarette smoking Hunting "Hot ash"- mishandling of fire in the community Wicked people Careless burning of bush to create fire belt Effects Reduces soil fertility 	 We can't stop people from smoking "No nuong" People desire for bush meat Habits- people used to burning the bush There is no unity in the community 	 Bye- laws (To prevent cutting of fresh wood) Train & equip committees to fight bush fire Punish hunters found in burnt environment Sanctions A sheep, three fowls to the elders

2. Destruction of crop produce3. Too much cold and diseases	
4. Destruction of economic tree- shea, dawadawa	

Summary issues raised at the Community durbar

Causes and Effects of Bush burning in the Nadowli-kaleo District

The causes of bush burning as raised in the communities include;

- ✓ **Wild Honey harvesting**: Community members often use fire to harvest wild honey and this often lead bush burning. They also said that the people involve sometimes also intentional burn bush to pave way for them in the bush in order to have access to the trees on which the bees make the hives.
- ✓ **Hunting:** Hunting for animals in the bush of often practiced in the dry season. Hunters burn the bush to be able to have access to the animals. Community members said, in order to chase and catch rabbits and mice, they forest need to be cleared.
- ✓ **Cigarette Smoking:** Smokers also contribute to bush burning when they throw the lighted filter into bush. Careless handling of fire by cigarette smokers were said to be one of the predominant causes of bush fires in their respective communities.
- ✓ Wood Charring/"Charcoal burning"; it was also said during charcoal processing, if the fire is not handled properly, it can spark more and burn the bush. They complain that charcoal processers do not create fire belts and hence the probability of causing bush is often high.
- Wickedness and jealousy: This was explain in context of people intentionally burning their colleagues/neighbors farms due to jealousy.

 They said people have lost their farm produce in farm because other people envious of the success set fire to burn their farm produce.
- ✓ **Dumping fire on the farm/careless handling of fire in the farm/ Cooking on the farm:** during land preparation, burning of grasses and stumps gathered is done and if not done properly can lead to fire outbreak. Some people also cook in their farms and seen by the community members as another cause of bush burning.

- ✓ **Irresponsible control burning:** Control burning can also lead to bush burning if not handled properly. Some community
- ✓ **Tiger nut harvesting:**the burning of tiger nuts plots during harvesting can also lead to bush fires. In Takpo, Gyilli and Sankana communities where tiger nut production is high, bush fires can also be attributed to the tiger nut farmers.
- ✓ **Fulani herders:** Community members claimed that the Fulani herdsmen burn the bush to take advantage of the early rains. This they explain that, when they burn the bush, pastures easily grow with the onset of the early rains
- ✓ **Through women searching for fuel wood/Burning to pick shea nuts:** Women in particular will burn the bush to enable them search easily for fuel wood. They may also set fire on the bush to enable pick shea fruits during picking season.
- ✓ Quest to chase away wild animals like pythons: community members especially complained of the presence of wild snakes around their houses and as such the need to burn the bush to chase away the snakes.
- ✓ **Travelers;** Unknown people/people from different communities travelling along the communities can also cause bush fires. Community members blame most of the bush fires on the travelers.
- ✓ **Children setting fire for fun:** it was also agreed that children sometimes play with fire which can lead to bush fires and even household fire outbreak
- ✓ **Fear of staying in the farm when the farm is highly forested:** Criminals and armed robbers are a menace in the district and people burn the bush to protect themselves from these people. When the bush is cleared, the robbers will have no place to hide.
- ✓ **Spirits/dwarfs**; Other people think there are some spirit which they call dwarfs that also burn the bush.

Effects of Bush fires in the Nadowli-kaleo District

✓ Destruction of economic trees e.g. Shea, mango, Dawadawa, Cashew and Destruction crops produce like maize, rice, yams, millet: Community members complained of the devastating effect of bush fires on their farm produce and economic trees on their farms

- and around their houses. They said a lot of people loose their crops to fires especially yam, rice, maize. Trees that were also suffering in the hands of bush burning are cashew, mango, dawadawa.
- ✓ **Leading cause of heavy wind storms:** the high incidence of winds is also attributed to the lack of trees to serve as wind breaks.
- ✓ Cause of lack of rains/ Bushfire cause dry spells; most community members also think that the changes in the rain pattern can be attributed partly to the increasing incidence of bush fires in the district. Prolonged dry spells also considered as the effect of bush burning.
- ✓ **Poverty:** Bush fires is a contributing factor to the poverty situation in the district directly and indirectly. Bush fires destroy people property and render them poor.
- ✓ **Destruction of small trees leading to deforestation/Destroys the vegetation;** the forest resources are diminishing because of bushfires. Small trees cannot grow because they are often burnt.
- ✓ Intensive cold during harmatan leading to diseases. They explained that they are experiencing extreme cold conditions during harmatan because the land is bear and cannot provide cover.
- ✓ Water bodies are drying up; the drying up of water bodies were also attributed to the high incidence of bush burning in the district.

 They explained that grasses and trees that protect water bodies have all been destroyed by bushfires.
- ✓ **Decrease yield of sheanuts, dawadawa, and cashew.** Economic trees are decreasing in yield year in year out because of bush fires. They cashew for instance bushfire and that cashew farmers are not enough for the investment and labour in cashew farms.
- ✓ **Decrease soil fertility and the Land becomes dry and compact:** the infertility of the soil was also attributed to the continuous bush burning activities in the district.
- ✓ Snake biting our children when they go to look for wild meat: when the bushes are burnt children are tempted to hunt and are exposed to snake bikes.

Barriers to Bush burning preventionin the Nadowli-kaleo District

- ✓ **Poverty;** poverty was seen as a cause to bush fire and a barrier to bush fire prevention. It was said poverty push people into doing the things that lead to bush burning e.g. charcoal burning.
- ✓ **Bush meat is seen as a delicacy;** to this, they said that, since "bush meat" is a delicacy of many people, it will be difficult from preventing them from burning the bush for hunting. This was also termed in the local parlance as "no nuo" which literally means high appetite for meat.
- ✓ **Non-involvement of Fulani in community decision making;** non-involvement of Fulani in community decision making was seen mostly by the youth as a barrier to bush fire prevention. According to them, Fulani should to be allowed to participate in community meetings when the issues to be addressed relate to the environment.
- ✓ High level of favouritism/political interference/Some elders break the law and go free of charge; There was a general compliant that, cuplrits are often not treated equaled. They cited previous cases where politicians would call for the release of culprits. This makes enforcement of bye-laws difficult. Some community members are left to go free when commit crimes and others are punished.
- ✓ Lack of community bye- laws: There are no community motivated or initiated bye-laws in most communities and as such enforcement of bye-laws set at the district level are difficult to enforce at the community level.
- ✓ Lack of unity among surrounding communities: Unity to tackled bushfires within and among communities is lacking
- Ignorance; Some people have no idea on the dangers of their actions by burning the bush and as such do not see need to stop bush fires. Some people think that they have burning for so many years and nothing happened in those years and why now the talk about bush burning.
- ✓ **Some people are wicked:** Some people were just described as wicked and would burn the bush no matter the consequences.

✓ Existing Fire volunteers are not well resourced and motivated: existing fire volunteers expressed their willingness to work but were not adequately resourced to execute their responsibilities. They complain that, the volunteers can just be working for nothing and suggested that they should be motivated with financial rewards.

Actions to be taken to prevent bush burning in the Nadowli-Kaleo District

- ✓ The landlords should come out with bye-laws/ Send bye-laws to District assembly for support: The wants their chiefs and elders to make community initiated bye-laws and has these bye-laws sent to the district assembly to gazette. They are calling for the support of assembly to help them enforce their bye-laws.
- ✓ Invoke the gods of the lands of the community to punish offenders; Some argued since culprits are difficult to fine or may not eve respect the orders of the chiefs or obey the bye-laws, they should invoke the wrath of gods to handle culprits that intentional burn the bushes indiscriminately.
- ✓ We need chemicals that can deter or drive away wild animals like poisonous snakes from our living environment. The women groups were advocating home spraying to protect their families from poisonous animals.
- ✓ Create fire belt around houses and farms: people were encouraged to create fire belts in their farms and their houses.
- ✓ We should all be vigilant and report culprit to the chief and Tindana; one other way to solve the problem is to be watchful and be ready to report culprits to the community leaders.
- **✓** There should rewards to motivate people/volunteers who report and arrest culprits of bush fires.
- ✓ **By forming fire volunteers groups:** Fire Volunteers groups should formed, trained and equipped.
- ✓ **Minimise or stop commercial charcoal burning;** The district assembly take steps to stop the commercialization of charcoal production in the district
- ✓ Communities should be united to fight bush burning: men and women, youth should all be united to fight bush burning.

✓ Educating household members on the effects of bush fires; there should be educative programs on environment in the community including sensitization of school children on the ramifications of bush burning.

Summary of Recommended Sanctions for Culprits of bush burning

Recommended sanctions for cuplrits include the following;

- 1. Payment of fines ranging from GHs10 to GHs 100.00
- 2. Canning of culprits as proposed by the youth groups
- 3. Buying of plastic chairs
- 4. Community work; Planting and nurturing 5 trees, sweeping the environment
- 5. Making sacrifices; sheep, Goat, dog, fowls and more
- 6. Call on the wrath of the Gods on culprits
- 7. Police in detention

Photos during the Community Durbar













