

*SOS Sahel Sudan*

**Evaluation of Community Environmental Action Planning Project**

**In**

**North Darfur State**

**By**

**Dr. Elamin Sanjak**

**Faculty of Forestry, University of Khartoum**

**2013**

## **1. Introduction**

Many organizations cling to their tradition of operating in a top-down fashion. This may still have its place, of course, but there is increasing awareness of the need to use bottom-up approaches to supplement the more traditional or institutional ways of working by involving local people and communities in decision-making and management processes. People will naturally be more committed to implementing new ways of doing things if they understand why changes are needed, and have had a say in designing the new practices. Involving people who use resources, as well as those who are affected by environmental impacts makes for better management. Such people can provide local information and traditional knowledge and they can help design management measures that will be acceptable to the resource users and the wider community. The second half of the last century witnessed the shift from conventional top-down approaches for planning and management of natural resources to the use of more comprehensive and participatory tools. Critics of the top-down approaches have increasingly called for the devolution of management responsibility for natural resources from distant-cantered professionals to those people directly influenced by resource-management decisions. The prevailing pattern of government intervention has been an increasing control over natural resources, and relatively limited access to resources by stakeholder groups that have traditionally or historically depended on them. Over the last decades, the top-down exclusionary conservation approach has been increasingly questioned on both ethical and practical grounds. However, this desired end could only be achieved by empowering communities to the extent that they become credible in their management of local resources with sufficient capacity to carry out that task.

The use of structured Community Environmental Action Planning approach (CEAP) started around 1997 with the Somaliland Natural Resource Management Project (SNRMP). CEAP offers an alternative to the top-down approaches that have characterized natural resources management in the past and proved unsustainable. It has improved the quality of life for the local people participating in the CEAP, they are able to obtain economic benefits, and the integrity of the local ecosystems is maintained. In addition it has contributed to improved and efficient natural resource management through a more participatory and devolved arrangement of regulations regarding resource use. The approach allows an increase in community participation, but is simple enough to realistically be adopted by local government institutions and can therefore be useful in scaling up participatory principles and values country-wide. Establishing CEAPs is an important contribution towards enhanced environmental management particularly as people have greater commitment to caring for their environment. There is sufficient evidence that CEAP processes have contributed positively to the level of awareness and involvement of local community in natural resource management. People's livelihoods have improved and ecosystems appear to be more sustainably managed or are healing through restoration efforts. CEAPs have the potential to make a shift from conventional donor planned and implemented projects to becoming institutionalized as an accepted model of management, which

embraces local communities as rightful planners and managers, and stewards of their natural resources. The implementation of these people-oriented environmental management plans would represent a great shift in the orientation of donors' policy from the traditional ready-made assistance package towards a more developmental, people and service-oriented approach.

On the southern edge of the Sahara desert and lying within Africa's arid zone, North Darfur State offers extremely difficult conditions for growing food, raising livestock and living. North Darfur like, any other Darfur areas, has had a substantive share of the effects of the current conflict as many rural poor have left their homes and settled in the urban centres. Water is lifeblood to people living in western Sudan's regularly drought-stricken North Darfur State. Sixty per cent of the state's (1.4 million) population is constantly faced with nagging doubts about whether the rains will come and if they will have enough food to survive on each year. Drought is a regular, unwelcome visitor to the state. Declining rainfall over recent years has led to low production of crops, which makes households vulnerable to food crises. Fluctuation of rainfalls in terms of intensity and distribution led to deterioration of soil fertility and degradation. This process associated with increased displacement of civilian populations from the rural areas because of the civil war and tribal frictions. However, In this respect, farmers, agro-pastoralists and nomadic groups still face real problems to access humanitarian or other recovery assistance, struggling to access to land for cultivation, pasture for herding or forest products which is also limited. Increased fighting is taking place at the project area, therefore, the instability of security is the main challenge to the system. It worth mentioning that all the efforts exerted through the utilization of the indigenous knowledge for adoption of CEAP approach to manage and conserve natural resources could stumble and fade away if Darfur crisis is not upset and remedial resolutions to the problem is considered.

SOS Sahel Sudan has been found and registered formally in January 2010 as heritor of SOS Sahel International UK heritage in Sudan, and now is taking over the SOS Sahel International UK in Sudan. The SOS Sahel program in Darfur started since 2012 aiming at building resilience through promotion of community natural resource management mechanism and resolving natural resource based conflict, and to improve nomadic and farmer communities life and livelihood. SOS Sahel planned and implemented CEAP project under the premises that communities living under current situation have had their lives and livelihoods strenuously stressed and strained by the impact of conflict and mismanagement of the natural resources. For Sahel and United Nation Environment Program (UNEP), the sustainable management of shared resources is key for promotion of livelihood and peaceful life. On this effect the United Nations Development Program (UNDP) and SOS Sahel established partnerships to implement the 6 months community Environment Action Plan (CEAP) pilot project in North Darfur to develop and facilitate the employment of CEAP processes and to guarantee sufficient participation, cross learning process and obligations between all actors and stallholders. The project overall objective is to improve the abilities of nomadic pastoralists and

resident communities to manage their environment and natural resources in more sustainable manner and cope effectively with, environmental challenges such as climatic variability and intensified land- use through community- based environmental action planning processes (CEAP). The specific objectives of the project are; to engage nomadic pastoralist communities and resident communities in the same landscape units in community environmental action planning and natural resources management, to build capacities of local Community – based Organizations (CBOs) of nomadic pastoralists network to enable them lead CEAP processes and environmental activities within nomadic pastoralist communities, and to adjust CEAP approaches to the specific needs of nomadic pastoralist communities.

The starting premise of this report is to highlight the issue of CEAP in selected sites in North Darfur State, namely; Sarafaya, Kuaim, Kussa and Umassal which are about 40 - 50 kilometer west of Elfasher (the capital of the state). Based on communities shared resources, economic ties and common interest, two CEAPs have been established one in Sarafaya and Kuaim and the other in Umassal and Kussa. The 6 month CEAP pilot project (March - August 2013) designed to develop participatory community based natural resource management activities, through; employments of community's participatory approach, by involvement of wide range of stakeholders includes; local leaders, the nomadic, NGOs network, state Ministry of Agriculture, local CBOs, Voluntary Network for rural development and Humanitarian Aid Corporation (HAC) as well as entire nomads and residents farmers communities living in the project area. The report attempts to explore the practice of CEAP on ground at the project area, its applicability and validity. Moreover, the report aims to explore measures of risks and constrain that confront the sustainability of the intervention. Annex 1 shows the term of reference for the assessment of natural resources and associated conflicts, and Annex 2 shows the itinerary of the study.

## **2. Objective of the Study**

The broad objective of the study is to contribute to the reduction of natural resource deterioration at the project area and avoidance of natural resource-based conflicts in North Darfur State through capacity building of local communities at the project area. The specific objectives of the study are as follows:

- To assess the project achievements attained through analysis of project relevance, performance , and immediate impact for both implementing partners and the beneficiary communities
- To reflect on the strengths and weaknesses of the methods used to achieve the project results/outputs.
- To draw the lessons learned from the project and the partnership experience to date – with special emphasis on issues of participation.
- To recommend a workable directives and actions to be considered in future interventions.

### **3. Methodology**

#### **3.1. Study Area**

The project area lies within Elfasher Rural Council about 40 km from Elfasher town to the west. The project area share borders with Tawila Locality from south, Korma and Kutum localities from the north and north west, respectively. The landscape generally characterized by sandy soil, and clay plains, with gentle slope to the east, the semi arid thorny acacia trees and shrubs scattering here and there. In the project area the evidence of vegetation degradation and soil erosion is noticeable in the area. The seasonal runoff water from Jebel see hills from the far west runs across the area to the east up to Wadi Alku near Elfasher forming several seasonal water course streams called Wadis and Khours. The landscape characteristic and natural resources available shaped people livelihood strategies which are mostly farming and herding. In addition to this the nomads and agro-pastoralists use to rear livestock's in surrounding communal lands , and/or also migrating seasonally in searching for better pasture, and water for grazing and watering their animals. The low rainfalls and drought spells is often in area so some farmers who have access to Wadi lands make various treatment to slow down water in order to percolate into the ground. The water harvesting treatment used includes contour trenches, farm bunds, and also check dams, thus the seasonal farming laboring opportunity is also required, some poor farmers are used to work as farming labors. The project area populations are mixture of pastoralist nomadic and farmers groups living in 4 village councils namely Kuaim, Sarafaya, Kussa,, and Umassal, the total number of households are 3214, and the main tribes living in area are Etifat, and Eregat Arab, Zaghawa, Tongour, Berti beside other small tribes.

From the self-administered questionnaire SOS-CEAP officers showed the criteria for the selection of the project area. The main criteria were; accessibility of the area after building peace trust with the different forces prevailing at the project area, community willingness and interest in the project activities, existence of agro-pastoral and settled farmers at the same area, and lack of any institution that could commit to provide assistance in the management of natural resources and reduce vulnerability of local communities to environment deterioration. As far as selection of the stakeholders is concerned, the project aimed towards selection of an area in which there is existence of pastoralists and settled farmers to test the possibility of managing natural resources under peace and safe coexistence of the different stakeholders.

#### **3.2. Methods of Data Collection**

Two types of data were used in this study, namely; primary and secondary data. The primary data was collected through different methods; Participatory Rural Appraisal (PRA) with the primary stakeholders (community members), self-administered questionnaire with secondary stakeholders (two of SOS – CEAP team), group discussion with the project committee members who were considered as key informants, the observation of the consultant. The secondary data was collected from the SOS office represented in the narrative final and inception reports. Different PRA tools were used to

collect data from the primary stakeholders like historical timeline and trend analysis, natural resource mapping, besides focus group discussion. Annex (3) shows the checklist for data collection from primary stakeholders. For PRA the target population was the members of local communities at the project area. No consideration was made to the gender issue because according to the traditions and taboos this issue is beyond discussion. Therefore all the respondents were male. Annex (4) shows the lists of PRA attendants at the different sites. It worth mentioning that the PRA for the communities members of Sarafaya and Kussa was made at Sarafaya village market in which the members of the two communities are available, while the PRA for Kuaim was made at the mosque after Friday prayer which is always attended by most, if not all, of the males of the village. The application of PRA method started with a brief introduction about the consultant and the objective of the project evaluation. This step followed by series of open questions followed by more specific questions depending upon the responses to the open questions. Responses to these questions were recorded. The team of data collection consists of 4 members at each site (the consultant, SOS-CEAP facilitator, SOS officer, and a representative from the local community. Plate (A and B) shows the PRA at Kuaim mosque and Sarafaya Market, respectively.



**Plate (A): PRA at Kuaim Mosque**



**Plate (B): PRA at Sarafaya Market**

The selection of the members of the team of data collection was based on; they are in direct contact with the target groups according to the nature of their work, and they are

knowledgeable with the traditions and customs, the culture of the target group, acquainted with the nature of the study and motivated to cooperate. At the arrival to any site a small informal meeting was organized by the consultant with the rest members of data collection for sake of distribution of the roles in the process of data collection. Plate (C) shows the team of data collection

The self-administered questionnaire was used to collect data from the secondary stakeholders. Annex (5) shows the self-administered questionnaire for the secondary stakeholders. This method was used because the respondents are literate, able to follow written instructions, understand the issues being investigated, and sufficiently motivated to complete the questionnaire on their own. The questionnaire was given to the respondent as homework since the respondents are very busy during the work hours. The objective of this method of questionnaire is to explore the views of the officers on the different items discussed with the local people with a reasonable depth since the officers have the insight to verify the different aspects in the study area and link them to scientific facts.



**Team of Data Collection**

The group discussion was carried out with 3 key informants from each site (Sarafaya, Kuaim, Kous, and Um assal). The key informant selected for the evaluation were; the head of the village committee, the secretariat of the village community and the treasury officers.

#### **4. Results**

The SOS – CEAP staff stated that the local communities were committed to the project initiatives and showed genuine participation in the different activities in all the selected villages for the project activities except at Umassal in which the level of participation is relatively low compared to the other sites. The local communities showed their keenness and interest to participate in the project activity due to their urgent need for developmental activities that could help them in enhancing their resilience at the area which is vulnerable to climate change and variability. The project through social survey was able to determine the main environmental problems at the project area and ranked them according to their priorities as perceived by the local people.

The local people represented their communities at the first and second workshop was selected, through general consensus, by the members of the communities. The participants are accepted by the communities; they are literate and have good reputation. SOS project helped the local communities to form their CEAP committee. The CEAP team with the selected committees made the resource assessment at the project areas. The main vulnerable sectors at the project area are water sector, agricultural sector, forest and livestock.

The staff of SOS complained from the delay of payments to meet the project activities. Although the project proposed for 6 months (March, 2013 to August, 2013), the field visits started on the 10<sup>th</sup> of April and continued up to the end of May, 2013. About 32 field visits were made during this period an attempt to accomplish the project activities within the specified period. The drawbacks of the delay of the delivery of the project budget are represented in the construction of the earth embankment during the rainy season. After one day of the construction Alku seasonal water course flooded and made some causality that differ from one site to another, but the worse result is apparent at Umassal area where the wing of the dam washed away by the flood. By having a look at the last site visit to the project area (30 May, 2013), it is clear that there was no monitoring to the project activities. During the period of first of June up to August there was no any field visits to the project area made by SOS project. It could be concluded that the field visits were not systematic across the life span of the project. There were no field visits at the first two months of the project, and then the visits were intensified during the above mentioned period, and ceased for the last two months. It is expected to have systematic instead of sporadic visits.



#### **4.1. Kuaim Village Council**

Kuaim village is about 40 Km west Elfasher (the capital of the state). The village council consists of 13 villages. The number of households at the village council is about 570. The local people suggested some projects related to environment, namely; community forest, agricultural inputs (improved seeds and tools), and hand pumps. Water sector was ranked as top priority in CEAP process. The community members through general consensus agreed on the construction of the three water mini yards.

At Kuaim village the key environmental problems according to the natural resources assessment are, acute shortage of drinking water, fuelwood scarcity, decline in crop production, sporadic rainfall, land degradation and land tenure. The local communities proposed solutions represented in the rehabilitation of the hand pumps, establishment of new water points, adoption of submersible pumps, provision of agricultural inputs and adoption of community forests at the project area. The community priorities were; dam or embankment construction, provision of agricultural inputs, fuelwood substitutes, and rehabilitation of 3 hand pumps. The activity of the water mini yard although ranked at the bottom of the community priority, it was selected by the project.

##### **4.1.1. Mini Yards Achievements at Kuaim Village Council**

In the public meeting the local inhabitants mentioned different needs related to water sector like water yard supplement, well drilling, hand pumps rehabilitation, drilling pumps, hafirs supplement, training in water resource management, and well. During the ranking process there was a general consensus for the rehabilitation of the 3 hand pumps at the village council. It worth mentioning that there was one hand pump functioning properly and there are 7 others hand pumps which are out of order. The functioning hand pump is rented to outsider who was able to install submersible pump but increasing the price of the water every now and then. The outsider got in conflict with local community members and collected his equipment and quitted from the area leaving the local people without a source for drinking water. SOS project provided the local community at Kuaim Village Council with 3 submersible pumps and 3 engines (electricity generators). Two hand pumps were allocated within the vicinity of Kuaim Village (the distance between the two is about 400 m and the third was allocated at Tindil Village).

##### **4.1.2. Relevance of the Mini Yard**

As far as relevance of the intervention is concerned, the activity is a real reflection of the local people needs. Through general consensus the members of the community agreed upon the construction of the three water mini yards. After the withdrawal of the outsider trader with his submersible pump the local people have to cross about 9 to 10 km to bring water from Sarafaya Village (about 3 to 7 hours traveling for collecting water).

One of the water mini yard at Kuaim is working properly and the water is enough for the people of Kuaim Village and the nearby villages. The mini yard is managed by 3 members of the village committee and they receive one third of the collected money as an incentive and the two thirds are saved for maintenance and provision of spare parts whenever needed. The water is collected in a small basin made of bricks and concrete. The storage capacity of the basin is  $10 \text{ m}^3$  ( $4 * 5 * 0.5\text{m}$ ), and it takes about one hour and half to be filled. The mini yard works about 14 hours daily (6 am to 8 pm) and during summer time it works all the day around. The price of the water is very cheap where only 700 piaster is paid for 4 containers (one container is equivalent to 4 gallon) and donkey drink. Some poor people may not have this little amount of money, instead they can bargain by some seeds of Dura or millet. Plate (D) shows sacks of millet and dura as collateral for having water by the members of local communities in Kuaim Village and surrounding villages. The second water mini yard at Kuaim Village is not working although the yard is ready to function. The local community was committed to construct a basin similar to that of the first water mini yard at the village. Due to their involvement in their farms which represent a top priority, they haven't enough time to construct the basin during the harvest season. Moreover, the local people are not keen to accomplish the second mini yard. They assume that if the second water mini yard operated successfully, it will affect the quantity of water at the second mini yard. They support their allegation by the trials made to check the properness of the second mini yard. After just one hour the yard failed to drag water from ground water. The village committee has an opposing idea emphasizing that the operation of the second water mini yard would represent a source of income to the village committee which could be exploited in the development of the area.

The third mini yard at Tindil Village is doing well and the local people are committed and participate genuinely in the improvement of the hand pumps. The local community constructed a small room in order to protect the generator from theft. During the course of data collection for this study the community members were found in a nafir (work party) to construct a basin for the mini yard. The members of the village committee are complaining from the continuous damage of the pipes. It worth mentioning that the pipes of the hand pumps are very old introduced by Water and Environment Sanitation Project (WES), 9 or 10 years ago. The members of the community are bankrupt and have no financial capability to cover the cost of the pipes and their transportation due to their acute poverty. The mini yard needs 15 pipes of 3m in length (the depth of ground water table is about 45 m).



**Plate (D): Millet and dura for water collection at Kuaim Village**

The common problems confronting the sustainability of the intervention are the lack or shortage of fuel. Due to the political situation and the civil war in the state it is difficult or need complicate procedures in order to transport small amount of fuel to the project area (Kuaim Council Village) because the area is within the control of the Armed Revolutionary Front. In the black market the price of gallon of gasoline is about 40 SDG which make it uneconomically feasible to run the three mini yards.

#### **4.1.3. Strength and Weakness of the Mini Yard**

The adoption of the intervention at Kuaim Village Council contributes significantly to the sustainable livelihood of local communities at the project area. About 13 villages representing 3 village councils (about 570 households) benefited from the intervention and the availability of water all the time. In the past, before the construction of the water mini yard, using hand pumps, a long queue of container extend for a long distance. It may take 2 to 4 hours to collect water. Now in few minutes it is possible to collect the needed water with very cheap price compared to the situation when the mini yard was under the control of outsider merchant. The water mini yard intervention contributed significantly to social consolidation in which the members of the village council were able to organize themselves to discuss the environmental problems and rank them according to their priorities. Moreover, the community was able to form a committee for managing the water mini yards and formulate a strategy for sustaining the intervention by saving 2/3rds of the returns of water purchase.

The project followed the right channels to convince the local communities to participate in the intervention. The project benefited from the experience of WES project at the area. All the technical assessment for upgrading the hand pump into submersible pump was

made with WES for sake of improving community access to reliable water. Moreover, the old water committee was selected to resume the management of the water mini yard due to their accumulated experience in this field. Consultation with WES and Water Department for supervision of the activity was made with a reasonable cost (only 1000 SDG). To ensure that the procedures are going on the right tract a contract was signed with a company to install submersible pumps and made the connectivity of the generator for the 3 water unit. Handover of the 3 water unit to the water committee was made in a big ceremony. Plate (E): shows the third water mini yard at Tindil village.



**Plate (E): Water mini yard at Tindil Village**

To guarantee good functioning of the system and its sustainability, two days training workshop was organized by a consultant from Water Department at Kuaim water mini yards. The training targeted the members of the water committee and selected villagers. Two water pump operators were selected for each mini yard (6 participants) to be trained in the fields of maintaining submersible pumps, routine service care, and fixing the submersible pumps. It is therefore, possible to judge the effectiveness of the project intervention by the ability of the project to mobilize and sensitize the local communities and organize them into working groups. The participation of the members of local communities was genuine participation. They provided the project with their simple tools (hand tools), when needed, and they were responsible for the accommodation of the project staff and the outsiders.

The environmental intervention at Kuaim Council is a real reflection to the needs of the local people at the project area. Water represents a bottle neck for life. This verifies why it was considered as top priority by the local communities. The interventions of mini

yards now are serving 3 village councils and it is expected to serve the nomads who are usually cross the area particularly during summer time.

#### **4.1.4. Impacts Assessment of the Mini Yards**

In an attempt to assess the overall impact of water mini yards intervention at the project area, the attendants of the public meeting (86 attendants) were asked to evaluate the efforts exerted by SOS project (CEAP). Some people believe that the success can be assessed as 75%, while some other believe it varies between 60 – 70%) and the majority stated that the success can be assessed as 80%. Irrespective of the given percentages, all the answers indicate the success of the intervention with an overall average 73.3%. Since it is the first time to launch CEAP at the project area it can be considered as a successful intervention. The overwhelming majority of the participants in the PRA is satisfied with the intervention and expressed their appreciations to SOS organization several time during the PRA process. The immediate impact generated by the project is represented in capacity building of the CBOs who are right by now knowledgeable about their rights and become acquainted with the channels through which they can contact the government officials to address their problems and ask for support. From the above mentioned facts, the local people are very satisfied with the efforts exerted by SOS. Moreover, a small garden adjacent to one of the Mini yard benefited from the waste water in the production of vegetables (okra, tomato and water melon) by the village committee.

The impacts of SOS project is not restricted to the beneficiaries, the staff of SOS also benefited from CEAP process where 6 members of the organization were trained with the local people in the different training workshops and supervised the application of the processes at the field. Moreover, two participants from the Ministry of Agriculture were trained in CEAP process.

#### **4.1.5. Sustainability of the Mini Yards**

Provision of drinking water for human being and animal at low cost was a dream that became true at the project area. Several factors will contribute to the sustainability of the intervention, namely;

- The local community has become well organized and enlightened about its need and how to access it. The village committee and the water committee are taking care of the Mini Yards at the project area. These committees were formed through general consensus. Therefore, they have the trust of the community and they are keen and interested to serve their people.
- The high sense of ownership of the CBOs and network is one of the important factors that would contribute to the sustainability of the intervention. Moreover, the Revolutionary Front which is the dominant government at the project site gives license for the project work.

- Some inhabitants (6 persons, 2 persons for each Mini Yard) were trained in the different aspects of the Mini Yard like maintenance of the submersible pumps, routine maintenance and check up of the submersible pump and the generator. Moreover, 6 candidates were trained and participated practically in the fixation of submersible pumps.
- Genuine participation of the community members in the activity as shown at Tindil Village where a room was constructed and a basin is under construction. Moreover, at Kuaim brick kiln is under construction for provision of bricks for basin construction.
- The heartfelt need of water push the local community address any problem associate with the Mini Yards to the relevant body for immediate fixation of the problem.
- The activity of the intervention represented a source of income generation for some members of the community and a source of job opportunity. Money collected from water purchasing is used for provision of fuel and spare parts without the need to contact others for assistants.

#### **4.1.6. Challenges and Lesson Learned from the Mini Yard**

The main challenge that represents a real measure of risk confronting the intervention is the prevalence of civil war. The project area is under the control of Revolutionary Front (Kussa, Sarafaya and Kuaim) and Gangaweed (Umassal, and the project office at Elfasher is under the control of Sudan government. This complex situation proceeded in harmony, but the situation could explode at any moment leading to displacement of the people at the project area. Another challenge is the short life span of the project (March to August, 2013). Although the life of the project is just six months the budget of the project was not delivered in time (3 months latter from the start of the project). This situation made the local people suspicious about the project and its intension. The problem of fuel, under the present conditions, is very serious. Gasoline is not affordable to the villagers and the price of a gallon is 40 SDG. Buying fuel at this price will consume all the money collected from water selling. Moreover, the water basin needs continuous cleaning due to the high accumulation of algae. Finally, the acute poverty in the project area will not allow the local people to contribute financially to development activities. The main lesson learned from the adoption of Mini Yards is the possibility of mobilizing, sensitizing and organizing the people of local communities into working group if outsiders showed their keenness to provide support.

#### **4.1.7. Recommendations to Overcome Mini Yard Challenges**

- The candidates who were trained in the different aspects of water control and management should disseminate the information they gain and share them with others local people.

- If it is possible, and in order to reduce cost, the engine (generator) should be replaced by solar cell in order to avoid the complexity of fuel.
- In the future, adoption of water yard should be a top priority in the expense of mini yard.
- Shallow well water and bore holes could be used as alternatives to face the challenges confronting provision of drinking water.
- It is important to assign a certain place for animal and human drinking by provision of more pipes.

## **4.2. Sarafaya and Kussa Village Councils**

### **4.2.1. Project Achievements at Sarafaya and Kussa – Earth Embankment**

The key environmental problems at Sarafaya were acute water shortage, natural resource based conflicts with nomads groups, fuelwood shortage, decline in crop production. At Kussa the main environmental problems prevail. In addition the area suffers seriously from gully erosion. The community proposals to mitigate the environmental problems at Sarafaya were construction of earth embankment, provision of agricultural inputs, and establishment of community forests, while at Kussa the community proposal were control of illegal felling of trees and conservation of natural resources in addition to the proposals of suggested by the community of Sarafaya.

The project activity at Kussa and Sarafaya is water harvesting using earth embankment. In the past the earth embankment was made by Practical Action Organization in 2001. The objective of the dam was to trap water and raise it level to spread on the two banks of the El ku seasonal water course to cover devastating areas of arable lands. The dam was dilapidated due to swift water current that eroded the wings of the dam in 2007. The local communities suffer from water scarcity which is aggravated by climate change and variability. Many household migrate due water shortage for them and their animals. SOS project shouldered the responsibility in a close coordination with the local community and constructed the earth embankment this year. Blocking of the seasonal water course path way is an old practice at the project area (autonomous).

### **4.2.2. Relevance of the Earth Embankment**

The amount of rainfall at the project area is little since the area fall within the semiarid zone. Moreover, the rainfall is erratic in nature and fluctuates in terms of intensity and distribution. The project area is transverse by seasonal water courses which bring water from Jebel marra mountains that characterized by high rainfall which may exceed 800 mm per annum. Wadi El Ku is the most famous seasonal water course in the project area. Wadi El Ku starts in the Jebel Si and Furnung mountains in the northern most extensions of the Jebel Marra Plateau. The Wadi flows for more than 250 km, and is known by different names at various stages of its journey. The main course is joined by other smaller tributaries on its way. The major wadis from north to south are: wadi Tabo, Wadi Magdub, Wadi Tawila, Wadi Keira (Kej), Wadi Sauda, Wadi Durura, Wadi Abu Hamra and Wadi Amer. The Wadi first goes east past the town of Kutum for about 40 km. then turns south at Um-Siyala, then on to Lammeina and Kafoat from where it travels southeast to feed a big earth-dam (Golo) west of El-Fasher. The earth embankment was made across this wadi. The intervention is relevant since it trap water coming from areas of high rainfall and the project area is characterized by low rainfall.



The project successfully was able to construct the earth dam as asserted by the majority of the met people in the project area. The dam was able to obstruct the water current and the level of water raised dramatically and the water spread across the two banks covering devastating areas (more than 10 km). The intervention was suggested by the entire members of the two communities. The immediate impact of the intervention in the local communities is represented in resettlement of the migrated households and all the households are satisfied with the initial results of the dam which is represented in the inundation of arable lands. This year the bulk of the local people are expecting extraordinary yield from watermelon, tobacco, and vegetables. The immediate impact on the implementing partners is represented in the good reputation due to the fulfillment of the ambition of the members of local community.

#### **4.2.3. Strength and Weakness of the Earth Dam**

The idea of earth embankment is not new at the project area, and it is autonomous activity (locally driven). The system always collapse under strong water current because the earth dam (locally known as bridge) are made at small scale. The present earth embankment was made using motor grader. The earth was raised to about 4 meters in height and the width of 5 meters at the top and 7 meters at the base. The length of Kussa dam is about 60m. Moreover, the loose soil at the base was excavated and replaced by compact soil. The efficiency of the intervention is apparent from the first rainy season. There are some areas which were not inundated by water for the last 10 years, as asserted by the local people. In this year the water covered the arable lands of Gangouna (A), Gangouna (B) Gangouna (C), Sarafaya (A), Sarafaya (B), Sarafaya (C), Birka, UM ishoush, Um hegilig and kussa. Those days the people are busy at their farms hoping for good harvest. The members of local communities participated physically and provided accommodation to the staff of the project and labors. Plates F and G show the earth embankments

The implementing agent – private company with good reputation and experience in earth embankment construction – used appropriate methods to give satisfactory success. Two dams were constructed the first is near Kussa and the second is known as Haroun Dam near Sarafaya. The villages committee which consists of 20 members (10 members from each site) was responsible for coordination with the private company and they were involve in the activity from the planning phase up to the implementation of the activity. To avoid pitfall in the construction of the two dams, the Ministry of Engineering and Construction Affairs (Water and Wadi Department were consulted for licensing and technical advise and supervision of the work. In order to guarantee effective implementation of the dam tender process was made and the competition between 7 private companies for the selection of the implementing agent was made.



**Plate (F):** Earth embankment at Kussa



**Plate (G):** Earth Embankment at Sarafaya

#### **4.2.4. Impacts Assessment of the Earth Embankment**

The immediate short-term impacts generated by the project to the community structure are represented in the organization of the community members. A committee of 20 persons divided into two subgroups (CEAP1 and CEAP2) was created to coordinate the work of dam construction with the winning company. This year many of the abandoned farms due to lack of enough water farmers resume their cultivation. The cultivated area this season, due to the construction of the earth embankment is assessed as 20 km<sup>2</sup>. Provision of job opportunity is also could be considered as one of the immediate benefits of the earth embankment. The entire participants of the PRA made at Sarafaya market expressed their satisfaction with the initial results of the earth dam construction which is represented in the wide spread of the water in the agricultural lands. Moreover, one of the important immediate impacts is represented in the lack of migration due to water shortage. In the few last years some farmers who are a distant a part from the seasonal water course used to follow temporary migration to remote areas in which water is available. This year no any farmer migrated from the project area. On the other hands some people from remote area like Taweela (more than 10 km a part) rent parcels of lands for crop production. This year land rent and sharecropping are new practices to the project area due to availability of arable lands.

The successful implementation of the earth dam add experience and knowledge to the staff of CEAP team and to the staff of the SOS project since the process involved different steps and phases starting with the consultation of local communities, approaching the traditional leaders and building of peace trust. On the other hand right by now the staff of SOS is knowledgeable with the different companies engage in earth embankment and the technical sources in the government institutions.

As far as the assessment of the intervention by local communities is concerned, the voting of the attendants of the PRA varied between 85 -95% with an average of 90%. This high percentage reflects the successfulness of implementation of the earth embankment and apparent immediate impacts of the intervention.

#### **4.2.5. Sustainability of Earth Embankment at the project area**

The first sign of sustainability of the intervention is represented in the commitment of the local communities which is reflected in the formation of two committees to monitor the earth dam and raise plans for seasonal maintenance before the rainy season and to raise any problem associated with the dam immediately before its aggravation. The second thing that contributed to the sustainability of the dam is the expected yield due to the intervention. The villages at the project area are almost empty, the households which represent the main source of labor are at the farms most of the time. The high ecological awareness of the local communities after CEAP process drew the attention of the local communities to the importance of maintaining a healthy environment. With the increase of the number of beneficiaries to about ten villages, it is possible to cooperate to maintain and repair any break down of the system. It is worth mentioning more than 1951 households (16 villages) benefited from this intervention besides some outsiders. This huge number can monitor and repair any damage in the dam under the assumption that any household provided 10 SDG, 19510 SDG could be provided to cover any expenses.

#### **4.2.6. Challenges and Lessons Learned from the Earth Embankment**

The main challenges confronting sustainability of the earth embankment at the project area are the physical structure of the dam. The dam was made from earth and the water charge of Al ku seasonal water course is fluctuating. The local people fears in exceptional high flooding season the earth embankment might break down and cause gully erosion transport the fertile top soil and make the soil unsuitable for cultivation. The second challenge is the formation of gully erosions at the farms which is very common in most of the farms at the project area. According to the observation of the consultant, this has nothing to do with earth embankment but attributed to the plough of the farms which is made parallel to the direction of water flow. Some of the local people emphasized that the rain fall splashes will also contribute to the formation of gully erosion.

The main lesson learned by the members of the local community is the fact that “if there is a will there is a way”. After watching the dramatic changes with their eyes, the local people realize the simplicity of the process despite its complication.

#### **4.2.6. Recommendations to Overcome Earth Embankment Challenges**

The main recommendation is the establishment of a monitoring unit to patrol the earth embankment and raise routine reports on systematic basis in order to avoid dilapidation of the dam or the spread of gully erosion of the earth embankment. Since the operations of maintenance and repairs are costly, a monthly payment (reasonable) should be imposed on any household particularly after the harvest season to cover the cost of maintenance.

### **4.3. Earth Dam Achievements at Umassal**

Umassal council is about 50 km to the west of El Fasher and consists of about 12 villages and 693 households. Dam construction at Umassal is the first intervention to be made at the area. There is no any organization or government attempted to construct earth dam at this site. The plan was to construct the dam for provision of water to livestock and human being besides inundating the arable land to enhance crop production. The dam was constructed during critical time (rainy season). Therefore, the results achieved were below expectations. The community priorities were construction of earth embankment, provision of agricultural inputs, energy substitutes and installation of hand pumps.

#### **4.3.1. Relevance of the earth dam**

The selection of the earth embankment intervention was made by the community after the witness of the great success achieved at other areas. There is a general agreement among the local people for ranking the construction of the earth dam as top priority. The local people are agro-pastoralists relying on agriculture for income generation and self satisfaction and rear animal as style of life and provision of animal products. The area is transverse by many seasonal water courses carrying huge amount of water which flow to Golo Dam at Elfasher. The project area is not benefited from the surface runoff water due to lack of knowledge and skills of water harvesting techniques by the local communities. Despite the richness of water at the project area, the amount of rainfall is relatively little and this represents the characteristics of the semi arid zone. Under the process of climate change and variability the natural rangelands deteriorated dramatically and crop productivity is declining in the project area and in all the state. Adoption of earth dam embankment is a vital solution to the above mentioned problems where it is possible to provide drinking water for animals and human being and for other domestic uses. It is expected that when the earth embankment has it full storage capacity the water will flood over the two banks to provide an opportunity for cultivating wide area around the Al ku seasonal water course. It was expected that the dam will provide the chance for cultivation of arable land with the vicinity of 2 km around the seasonal water course.

In brief, the selection of the intervention is a right decision taken by the community members. On the other hand SOS project was keen to involve all relevant stakeholders including marginalized groups within the community for sake of having general consensus about selection of the most relevant intervention that has a direct relationship with the surrounding environment. Moreover, the project created local ownership of the intervention by ensuring that the process is understood by all he stakeholders. The project used and built on existing structures and institutions at the project area and enhanced the local people participation and ownership.

The local community at Umassal asserted that the constructed dam failed to trap surface runoff water due to the high erodability of the water current which resulted in drifting the earth embankments and the water return back to its traditional pathway without inundating the farms adjacent to the seasonal water course. Therefore, it can clearly be stated that the objectives of the project at Umassal was not achieved. It was expected that an area of 2 km in length on the two sides of seasonal water course will be inundated by water and contribute to the sustainable livelihood of local communities. Plate (H) shows that the wing of the dam was made parallel to the natural pathway of water current.



**Plate (H): Construction of the earth embankment at Umassal**

Opinions and ideas of the local people, as stated by the respondents, were not taken into consideration during the implementation process. The local people proposed blocking of seasonal water course pathway. Accordingly the environmental intervention needs to be fixed through rehabilitation of the constructed dam in order to motivate the local communities of Umassal area to participate in the project activities in the near future.

#### **4.3.2. Assessment of the Earth Embankment Impacts**

As far as the assessment of the impact of the earth dam is concerned, the local people differed in their assessment, the assessment of success varied between 25% to 40%. The average percentage of success is 32.5%. This reflects the low level of success and

accordingly the local community did not benefited from the project intervention. The water eroded the earth and created a gap in the dam earthy wall and the water returned back to it's natural pathway. From the above finding there is no immediate short-term impacts generated by the project to the community structures. The beneficiaries are disappointed and unsatisfied with the construction of the earth embankment, particularly when they compare their situation with those of Kussa and Sarafaya. It can clearly be stated that the project has negative impacts on the local people of Umassal community. Some of the local people were suspicious about the construction of the dam and they believe that deliberate engineering mistakes were made.

According to the above mentioned situation, the sustainability of the intervention at Um assal is unquestionable since no achievement was attained. The local people showed their opinion regarding the construction of the dam right from the start of the construction and asked for the extending of the wing of the earth dam to block seasonal water course pathway but their ideas were ignored. What make the situation worth is the fact that the level of ownership of the project intervention by the CBO and network is very low. It is expected that the local people should exert some efforts to maintain and repair the broken wall of the dam, but no attempts or initiatives were made to fix the problem.

#### **4.3.3. Strength and Weakness of Umassal Earth Embankment**

It is expected that more than 12 villages consisting of about 930 households will benefited from the construction of the earth embankment. The animal wealth was expected to flourish with availability of grasses, weeds and shrubs. No results were achieved and the situation remain as before although all the procedures of success were followed typical to that of Kussa and Sarafaya dams. Technical assessment was made according to which the location of the dam was agreed upon and a committee was formed to follow the implementation of the earth dam. The Ministry of Engineering and Construction affairs was also informed about the dam and issued the license for construction. The local people emphasized that the responsible engineer was not around during the construction of the dam and his assistant supervised the whole operation.

The project managed to organize training workshops to the local people at Umassal, but the participation of the members of the community is not genuine and the people are not committed to the project. The project staff encountered some difficulties and experienced hard times with the Gangaweed armed forces and they were subjected to interrogations about their presence at the project area. The staff of the project assessed the community members of Umasal as reluctant people and very demanding.

#### **4.3.4. Challenges and Lessons Learned from Umassal earth embankment**

The main challenge is the existence of civil war at the project area. This sensitive situation confront a serious challenge towards the success of the earth embankment at Umassal area. The second challenge is the difficulty of mobilizing and sensitizing the members of Umassal Village Council. The local people are not keen to participate in the project activities and all the time asked for assistant and support. A vital example is the field visit to Umassal for evaluation. Although the local community was informed about the mission and were asked to attend the PRA process for evaluating the project intervention, only 3 people discussed with the team of data collection about the construction of the earth embankment at Umassal.

The main lesson learned from the project is that the local community at Umassal needs intensive training through extension to raise the awareness and to mobilize and sensitize the local community to participate genuinely in the project activities.

#### **4.3.5. Recommendations to Overcome Earth Embankment Challenges**

- For rural development projects, the budget should be delivered in time in order to reflect the seriousness and commitment towards the project. Moreover, develering buget at the right time gain the trust of the local community and enhance their participation.
- Selection of the right time for implementation is a key factor for the success of all projects. At the study area the consturction of the dams was made during the rainy season. All the budget of the projects for dam contruction could fade away if there was a torrent during the construction of the earth dam.



**Annex (1)**  
**Study itinerary**

<b>day</b>	
<b>2.10.2013</b>	<b>cancel of the flight to Elfashier</b>
<b>3.10.2013</b>	<b>Departure for Elfashier</b>
<b>4. 10. 2013</b>	<b>PRA with community members of Koussa and Sarafaya at Sarafay Market</b>
	<b>PRA at Kuaim Mosque</b>
	<b>Visits to Kuaim's water Project</b>
<b>5.10.2013</b>	<b>Correspondence with CEAP team at Elfashier for depth discussions</b>
<b>6.10.2013</b>	<b>Visit to Um assalaya</b>
	<b>Visit to Sarafaya and Kosua Dam</b>
<b>7.10.2013</b>	<b>Discussion of the initial findings with the staff of SOS at Elfashier</b>
<b>8.10.2013</b>	<b>Departure for Khartoum</b>

**Annex (2)**  
**SOS Sahel – Sudan**  
**TOR For Community Environmental Action Planning (CEAP) project final**  
**Evaluation**  
**North Dardur**

**1. Introduction:**

North Darfur like, any other Darfur areas, has had a substantive share of the effects of the current conflict as many rural poor have left their homes and settled in the urban centres. The conflict-affected people are estimated at 2.5 IDPs living in camps, with other large population segments hosted by host communities who remained vulnerable in their origin villages the situation of the affected communities is however largely characterised with effects of protracted emergency, blocked access to resources and income.

However, In this respect, farmers, agro-pastoralists and nomadic groups still face real problems to access humanitarian or other recovery assistance, struggling to Access to land for cultivation, pasture for herding or forest products which is also limited.

**2. Project Summary:**

SOS Sahel program in Darfur started since 2012 aiming at building resilience through promotion community natural resource management mechanism and resolving natural resource based conflict, to improve nomadic and farmer communities life and livelihood, SOS Sahel planned and implemented this project under the premises that communities living under current situation have had their lives and livelihoods strenuously stressed and strained by the impact of conflict and mismanagement of the natural resources. For Sahel and United Nation Environment Program UNEP, the sustainable management of shared resources is key for promotion of livelihood and peaceful life, On this effect the UNEP and SOS Sahel established partnerships to implement pilot project in North Darfur to develop and facilitate the;

- Employment of CEAP processes, to share knowledge and skills with communities to enable them plan for sustainable management and use of their natural resources
- To create sufficient Participation, cross learning process and obligations between all actors and stakeholders to sustain long last impact of project intervention.

The project area is lies within EL Fasher rural about 40 km from Elfasher town to the west, and bordered by Tawila locality from south, Korma and Kutum localities from the North and North west respectively. The project area populations are mixture of pastoralist nomadic and farmers groups living in 4 village councils namely Kuaim, Sarafaya, Kussa,, and Umassal, the total population are 3214 HHs, the main tribes living in area are Etifat, and Eregat Arab, Zaghawa, Tongour, Berti beside other small tribes.

**2.1. The project overall objective:**

The project overall objective is to improve the abilities of nomadic pastoralists and resident communities to manage their Environment and Natural Resources in more

sustainable manner and cope effectively with, Environmental challenges such as climatic variability and intensified land- use through community- based environmental action planning processes (CEAP).

## **2.2. Specific Objectives:**

- To engage nomadic pastoralist communities and resident communities in the same landscape units in community Environmental Action Planning and Natural Resources Management
- To build capacities of local CBOs of Nomadic pastoralists network to enable them lead CEAP processes and environmental activities within nomadic pastoralist communities
- To adjust CEAP approaches to the specific needs of nomadic pastoralist communities

## **2.3. Project Activities:**

The funding will support SOS Sahel Sudan to facilitate and support Community Environmental Action Planning (CEAP) with two selected nomadic communities and resident communities in the geographic area of movement (along livestock routes) in North Darfur.

SOS Sahel Sudan's work under this project to adapt CEAP participatory processes, which have so far only been piloted with resident communities in Sudan, to the specific conditions of nomadic groups. The work will also include a participatory selection of the pilot nomadic communities and the resident communities they are regularly interacting with and cover training as well as support and co-facilitation of the two CEAP processes. The environmental activities under this project have been defined and prioritised by the involved communities through CEAP process(See detailed activities in project document).

## **2.4. Expected results/outputs to be achieved by the project:**

1. Members of one Nomadic Network in North Darfur are sensitized about SOS Sahel's work with Natural Resource Management with Nomads in cooperation with resident communities and the pilot planned two CEAP processes;
2. 16 members of two nomadic and two resident communities or CBOs from within these communities (i.e. 4 members from each community), six SOS Sahel Sudan staff and two staff of concerned line ministries have been trained in CEAP approach and respective PLA methods;
3. The two participating nomadic pastoralist communities and resident communities have gained skills/capacities to manage environmental issues effectively and in a sustainable manner;
4. The two participating nomadic pastoralist communities and resident communities jointly manage natural resources in a more sustainable manner including resources such as for example rangeland, woodland, and water;
5. Relationships, cooperation and peaceful coexistence between participating nomadic pastoralists (CBOs) and resident communities in their area of movement are strengthened;

6. Access to technical support services from government agencies is strengthened for the participating nomadic pastoralists (CBOs) and resident communities;
7. SOS experiences and lesson learned from Kordofan states have been collected and analysed, and good practices extracted, adapted, shared and disseminated, also in consultation with other organizations working in CEAP/participatory environmental management in North Darfur;

### **3. The purpose of the Evaluation:**

Although it is too short and early to see impacts for 6 month project( March to August 2013 ), SOS Sahel decided as the implementing agency to assess the project, through conducting an informative external project evaluation with the following objectives:

- To assess the achievements attained so far – analysis of project relevance, performance (successes and failures), and immediate impact for both implementing partners and the beneficiary communities
- To reflect on the strengths and weaknesses of the methods used – efficiency in utilisation of resources and effectiveness of the strategies adopted by the implementing partners to achieve the project results/outputs.
- To draw the lessons learned from the project and the partnership experience to date – with special emphasis on issues of participation.
- To recommend a workable directives and actions to be considered in future interventions.

### **4. Areas of focus for the evaluation:**

Generally, all the project components and results should be seen and also the evaluation should cover these areas:

#### **i. Project relevance and design:**

This is an evaluation of the relevance of the project interventions vis-à-vis.

The local context, needs on the ground and objectives of the project. This might require, but not necessarily limited to, the reviewing of the report on the participatory assessment survey carried out where existing community resources, problems, needs and priorities were identified. The evaluation should bring out what new key resources the project has added up to now, while comparing before and-after the project communities' resource map.

#### **ii. Efficiency:**

This is a review for the progress made towards the plans vis-à-vis the actual achievements attained, project coverage (geographical and beneficiaries), utilisation of financial, human and physical resources vis-à-vis the outputs, and the progress towards achieving results and hence the project specific objective. In other words, how much resources went directly to the project beneficiaries..

#### **iii. Effectiveness:**

Did the implementing agent use the appropriate strategies and approaches that best fit the project main components and achieve the envisaged results? Has the project had enough

involvement of and consultation of the Community structures, LGAs and community members so as to achieve expected results? Were the environmental interventions strong enough and appropriate to ensure peaceful coexistence between participating nomadic pastoralists (CBOs) and resident communities in their area of movement ?

**iv. Impact assessment:**

This assessment of impact should be linked back to “effectiveness” while taking into consideration the project context and time scale. What are the immediate short-term impacts (now) has the project generated to the community structures (CBOs and networks? Are the stakeholders (particularly beneficiaries) satisfied with the quality of the services the project delivered so far? What are the impacts on the project implementing partners and CBOs – what has the experience added?

**v. Sustainability:**

This is an evaluation of the institutional and financial sustainability of the project interventions and achievements made so far. What are the key factors or indicators of project sustainability? Are the community structures institutionally sustainable? What are the plans of the Government, CBOs and Networks to sustain the project interventions? Do these plans lay down foundations for sustainability? What’s the level of ownership of the project interventions by the CBOs, networks and LGAs alike? Are the linkages and co-ordination between Nomadic and residential community structures?

**vi. Challenges and lessons learned:**

What are the key challenges disqualified and/or stunted the project from delivering its interventions and progressing towards achieving its expected results? What are the lessons learned by the project stakeholders? What are the stakeholders’ perceptions towards the whole process and the approaches adapted?

**vii. Recommendations to overcome challenges:**

What are the recommendations to overcome challenges? What are the recommendations to consolidate positive lessons?

The estimated timeframe for this evaluation is 15 working days.

**5. Methodology:**

The evaluation should use simple data collection techniques/tools to collect quantitative and qualitative information from a wide range of beneficiaries, particularly Nomadic and residential community structures. Techniques for data collection should be simple and participatory. The evaluator is also expected to crosscheck the implemented activities to have a better understanding and be in a position to make proper judgements about issues of relevance, sustainability and best/bad practices (lessons).

**6. Management and Logistical Support**

- The overall evaluation process will be under the direct responsibility and supervision of the SOS Sahel Sudan Executive Director based in Khartoum.

- The operational management and logistical support will be under the direct supervision of the North darfur programme coordinator.

### **Annex (3)**

#### **Checklist for PRA with Local People**

- Assessment of level of success of the project intervention
- The process of area selection
- Process of participants selection in the project intervention
- Selection of the needed intervention
- Level of training and fields of training
- Formation of village or project committee
- Constraints and measures of risks confronting the intervention
- Proposals for the improvement of the achievement
- Level of participation in the activities
- Immediate impact of the intervention
- Relevance of intervention to the present situation
- Future plans for the area
- Conflicts and co-existence at the project area
- Selection of village or project committee
- Roles of the village committee
- Monitoring and patrolling of the project intervention
- Role of women in the project intervention
- Possibility of replicating the interventions
- Level of training, its suitability and validity
- Contacts and communication with government institutions
- Land tenure at the project area
- Sustainability of the intervention
- Transparency in the implementation of the intervention

## Annex (4)

### List of PRA Participants

#### A. List of respondents of Kuaim Village

	Name		Name
1	Abubakr Abdelgani Mohamed	44	Ahmed Bakheit Ishag
2	Hassan Mohamed Suleman	45	Mohamed Bakheit Ishag
3	Abdalla Salih Mohamed	46	Bakheit Hasan Adam
4	Sidig Abdalla Bidy	47	Osman Ahmed Yagoub
5	Osman Ahmed Osman	48	Mukhtar Tibin Yagoub
6	Husain Abbas Yousif	49	Yahia Younis Abbakr
7	Mohamed Haroun Salih	50	Ibrahim Younis Yahia
8	Zakaria Mohamed Abakr	51	Fadul Ahmed Kowaina
9	Adam Ibrahim Bidy	52	Hamid Ibrahim Ismael
10	Musa Adam Abdelmula	53	Dictor Adam Osman
11	Nasir Ismael Younis	54	Mohamed Abdalla Hamid
12	Awar Abdelkarim Yagoub	55	Adam Yagoub Abdelmawlla
13	Ibrahim Dayain Ahmed	56	Adam Yousif Yagoub
14	Ahmed Isahg Ahmed	57	Mukhtar Ahmed Adam
15	Sulaiman Hassan Ahmed	58	Eldouma Adam Mohamed
16	Ahmed Yousif Yagoub	59	Mohamed Adam Haroun
17	Ibrahim Bakheit Ishar	60	Mohamed Omer Mohamed
18	Sulaiman Abdelrasoul Bidy	61	Osman Ahmed Yagoub
19	Salih Ahmed Mahdi	62	Musa Adam Abdelmula
20	Ismael Mohmed Musa	63	Abkar Rahma Mohamed
21	Nasr Musa Bakheit	64	Abdalla Adam Haroun
22	Mohamed Adam Mohamed	65	Osman Hamid Eldouma
23	Ibrahim Adam Mohamed	66	Mohamed Abdalla Mohamed
24	Mubarak Ahmed Eldaay	67	Hassan Omer Abakr
25	Ahmed Mohamed Adam	68	Sulaiman Ibrahim Yagoub
26	Abdalla Ahmed Bakur	69	Shamsain Ishag Ahmed
27	Hamed Adam Ahmed	70	Mohamed Shomo Abakr
28	Eldouma Adam Mohamed	71	Abdelkarim Ali Rabie
29	Salih Iseldin Mohamed	72	Elfadil Abdalla Abeldayi
30	Abakr Abdalla Haroun	73	Ibrahim Eldouma Yagoub
31	Abdo Ahmed Yagoub	74	Abakr Khair Mohamed
32	Adam Abakr Rahama	75	Yagoun Abdalla Adam
33	Hamada Ibrahim Yagoub	76	Mohieldin Mohamed Younis
34	Yagoub Shamain Ahmed	77	Mohamadain Mohamed Omer
35	Manis Tahir Haroun	78	Adam Ahmed Mohamed
36	Adam Eldouma Ahmed	79	Mukhtar Abakar Eaidam



37	Abakur Khair Mohamed	80	Adam Ahmed Mohamed Abkar
38	Yagoub Abdalla Adam	81	Mukhtar Abakr Eeidam
39	Mohieldin Mohamed Younis	82	Mohamed Younis Abakar
40	Mohamadain Mohamed Omer	83	Eltaiab Osman Ahmed
41	Sadam Omer Salim	84	Ibrahim Izeldin Mohamed
42	Mohamed Ishag Haroun	85	Abdelaziz Ibrahim
43	Ahmed Abdalla Osman	86	Ibrahim Abdalla Abdelmula

## B. List of Sarafaya PRA participants

	Name		Name
1	Mubarak Ahmed Suleiman	32	Ahmed Mohamed Adam
2	Adam Hassan Noureldin	33	Elhadi Adam Basher
3	Abdelaziz Hamid Mudathir	34	Abdo Abuelhassan
4	Zakaria Osman Adam	35	Tigani Abdelrahman Zakaria
5	Ismaeil Ahmed Abdalla	36	Adam Abakr Mohamed Gumma
6	Badreldin Abdelrahman Hisain	37	Abdelaziz Adam Ahmed
7	Muhagir Mohamed Adam	38	Eldouma Adam Osman
8	Hassan Adam Abdalla	39	Mohamed Abdelgatif Mohamed
9	Amin Adam Zakaria	40	Mohamed Baraka
10	Ali Hasab Elnabi Mohamed	41	Hamid Abdalla Adam
11	Abdelgadir Ibrahim Adam	42	Abdalla Eesa
12	Ismaiel Osman	43	Ismael Ali
13	Ibrahim Hassan Adam	44	Nourelin Bilal
14	Abdelrahman Eesa	45	Abdalla Omer
15	Ibrahim Mohamed Adam	46	Gido Mohamed Tahir
16	Igani Mohamed Hasan	47	Ramadan Hashim
17	Ahmed Ibrahim Khalil	48	Elsadig Tibin
18	Sulaiman Abdalla Elzain	49	Hasan Ali Ahmed
19	Abu Bakr Hassan Adam	50	Abu Fadul Elnour Mohamed
20	Hamza Dodo	51	Ismael Ahmed
21	Abdalla Mohamed Ishag	52	Omer Elnour Mohamed Tahir
22	Ali Ibrahim Khalil	53	Adam Ahmed Sulaiman
23	Ibrahim Mohamed Hassan	54	Ibrahim Abdelrahim Abdalla
24	Mohamed Adam Abu Elbasha	55	Musa Mohamed Adam
25	Mohamadain Osman Adam	56	Ahmed Abakr Shamain
26	Adam Younis	57	Abdelrahim Abakar Shamain
27	Ahmed Mohamed Bkr	58	Hamid Mohamed Adam
28	Abdelrahman Mohamed Tahir	59	Yousif Abdelrahman
29	Maki Adam Younis		
30	Adam Osman Adam		
31	Eldouma Basher Adan		

**C. List of Koussa PRA participants**

	Names		Names
1	Aboud Haroun	7	Elsaied Zakria
2	Abdelrahman Abakr Mohamed	8	Abdalla Arbab
3	Ahmed Adam Mohamed	9	Ismael Hussain
4	Elhaj Yousif Zakaria	10	Gafar Hadari
5	Abdelbagi Hussain	11	Iseldin Ahmed
6	Elhaj Abdalla		

**D. List of Umassal PRA Attendants**

	Names		Names
1	Hamid ahmed hamid	7	Ahmed hamid ahmed
2	Mohamed abakr gumma	8	Ahmed Mohamed hamid

**Annex 5**  
**Questionnaire**  
**CEAP Team**  
**Evaluation of CEAP – SOS Elfashier**

- How many villages selected for each project site (Umassal, kium, Sarafyia, and Kussa Village Council)?
- How the stakeholders were identified?
- How the stakeholders were able to understand the CEAP process?
- General consensus or voting was followed to reach final?
- How stakeholders accept to participate in the CEAP process?
- How the participants of the project introductory workshop were identified?
- Is the number of the selected participants reasonable or enough?
- How the participants were selected for the CEAP project processes first and second workshops?
- How the CEAP committee was formed?
- What are the most vulnerable sectors at the project areas in general?
- Why there is great variation in the activities of the project related to the environment?
- Why the CEAP team field visits restricted to the period 10 April to 30 of May and it is expected to continue up to August?
- Why the sampling percentage is always less than 5% for stakeholder analysis and livelihood, rapid environment assessment?
- How the participants were able to estimate the costs of the proposed activities?
- How the stakeholder's priorities analysis was made?
- How the root causes of environment deterioration was made?
- How the committees were formed for the implementation of the proposed activities in the project area?
- Do you agree that the capacity building for the participants took a short time span?
- Where the training of the Mini yards operating and management training workshops is were conducted?
- How the project is monitored and internally evaluated?
- What are the main reason(s) behind the lack of completion of some project activities (participatory monitoring, documentation and evaluation of the activities, inclusion of mediation and negotiation methods on natural resources in CEAP process; where needed, and peace and co-existing training workshop for representatives of pastoral and settled communities.) and some other activities are under process)?
- What are the immediate impacts of the project in area?
- What is the role of the project in guaranteeing the sustainability of the activities?

- Is the project satisfied with dissemination of information made by the trainees to the other members of the communities?