



Coping with Drought and Climate Change Project Success stories



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List of Acronyms

CC	-	Climate Change
CwDCC	-	Coping with Drought and Climate Change
DA	-	Development Agent – the lowest structure of office of agriculture
DRMFSS	-	Disaster Risk Management and Food Security Sector
EW	-	Early Warning
GEF	-	Global Environment Fund
Ha	-	Hectare (1 ha = 10,000 metre square)
NMA	-	National Metrological Agency
NPC	-	National Project Coordinator
NSC	-	National Steering Committee
PM	-	Project Manager
PMU	-	Project Management Unit
Qt	-	Quintal (1 Qt = 100 kg))
UNDP	-	United Nations Development Program
WOoA	-	Woreda Office of Agriculture
WSC	-	Woreda Steering Committee

The booklet:

This booklet speaks about the success of the Coping with Drought and Climate Change project in Kalu woreda of south wollo zone, Ethiopia. The main objectives of the booklet are to air the voices of project beneficiaries about the success of the project implementation and brief the best and successful activities of the project.

The report has been divided in two major chapters: chapter one discusses about the overall project concept, and chapter two discusses the successes and benefits of the project activities in the eyes of beneficiaries. Readers are invited to refer the main accomplishment report of the project prepared by the same author, for their satisfaction for detailed accomplishments.

Acknowledgement

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1. The project

1.1 Background

The UNDP/GEF initiated, Coping with Drought and Climate Change, is a model project under implementation in four African countries: Ethiopia, Kenya, Zimbabwe and Mozambique. The main objective of the project is to pilot drought and climate change activities in the four drought affected countries, where the impacts of drought have been found disastrous. The project in Kalu woreda of south wollo zone, Ethiopia, as one of the pilot projects was initiated to underline experience sharing within and the country and across the project countries in the efforts to cope with drought and climate change.

1.2 Components

At the outset of the project the outcomes were categorized into 4, but during the inception workshop held in kombolcha, it was reduced to three. These outcomes and the respective outputs of the project as put under the three outcomes are:

1.1 **Outcome 1:** - Livelihood strategies that enhance the resilience of vulnerable farmers to cope with drought and climate change adopted and sustained.

- I. Output 1.1: Market oriented alternative livelihood strategies that enhance resilience and income introduced and promoted
- II. Output 1.2: Production oriented sustainable land management practices introduced and promoted

1.2 **Outcome 2:-** Enhanced use of early warning information in Agricultural systems at the selected pilot site;

- I. Output 2.1: Integrated drought information communication system established;
- II. Output 2.2: Capacity of community level institutions for climate information and risk management enhanced
- III. Output 2.3: Capacity of local Meteorological Institutions Developed

1.3 **Outcome 3:** - Farmers/Pastoralists outside the Pilot sites Replicated Successful Approaches to Cope with Drought & climate change

- I. Output 3.1: Farmers/Agro pastoralist outside the pilot kebeles are exposed to successful approaches and practices of the pilot kebeles
- II. Output 3.2: Acquired knowledge and lesson learnt shared with development actors and communities outside the pilot kebeles

1.3 The project site

The project is implemented in Kalu Woreda which is found in South Wollo Zone, Amhara National Regional State, Ethiopia. It is located at 11058'44'' N latitude and 37041'48''E

longitude. Kombolicha is the capital of the Woreda and is situated at 376 km from Addis Ababa and 500 km from the regional capital, BahirDar. It has 34 local administrative kebeles, of these 30 are rural and 4 are urban kebeles.

1.4 The Project Management

The project has been administered across four administrative levels (Ministerial, Regional, Woreda and Kebele) in line with government institutional set-up. As project management body two project steering committees were formed one at national and another at woreda levels, and a project management unit at woreda level has been formed and is actively working on the project implementation. The MOA/DRMFSS in consultation and support with UNDP-CO & Regional Office and other key stakeholders including MoFED, lead the execution of the CwDCC project, where it was responsible for the overall management and coordination of the project. The woreda level steering committee has had great successes in the management, and leadership of the project. The project office with a strong back up from UNDP country office has been fully working on the overall implementation of the project. Behind the success of the project has been said to be the great devotion and commitment of the project manager, almost all beneficiaries witnessed, during the visits for the documentation work.

The project was initially planned for 5 years starting from 2007 and ending in 2012, but due to the delay in the launching it is re-planned to run for three years starting in 2010 and ending in 2012. This has demanded an extraordinary commitment from the different actors, where the project secretariat (project manager), the UNDP-CO & Regional Office and the Woreda Steering committee were required to exert exceptional efforts.

1.5 What has been Accomplished?

The project was designed in a way that considers the concept of climate smart agriculture, which includes adaptation and mitigation activities such as the development of efficient seed systems which produce crops naturally resilient to climatic shifts; the harvesting of water for irrigation; etc. The major achievements are categorized as early warning information communication, crop production, livestock production, irrigation, potable water supply, community based natural resources management, marketing and value chain and environmental management. Such initiatives would not only improve food production but also reduce harmful gas emissions. For the details and complete information of the accomplishments of the project, the readers are invited to refer to the “Coping With Drought and Climate Change Project main document, prepared by the same author.

2. Successes of the Project: Beneficiaries speak

The successes of the project are meant to the mammoth commitment of project implementers and the project owners (Project manager, UNDP – CO, DRMFSS, and the woreda steering committee). The successes which is detailed in the main report, is now witnessed by project beneficiaries.

Situation: Kalu woreda of South Wollo Zone, Amhara Region is known to suffer from drought and climate change induced food shortage, water shortage, flooding and related challenges, where the CwDCC target kebeles are examples. The erratic and unreliable rainfall distribution has costed the rural communities more. In the past times people used to cope by consuming their long time accumulated assets. This forced the people to be out of assets and migrate or got starved if the drought or worst condition persists longer.

Response: The UNDP/GEF supported coping with drought and climate change project is being implemented at Kalu woreda as pilot to support the poor communities cope with drought and climate change. In the 3 years project different activities have been accomplished. These activities include crop production through provision of improved crop seeds over rainfed and irrigation, asset creation activities through the provision of sheep and goat rearing and beehives promotion, flood protection by training Felana River and saving agricultural lands and other activities as coping mechanism. The capacity building component of the project along with climate change mitigation measures such as community based natural resources management and environmental protection activities have also been implemented.

The project has helped 268 beneficiaries by supplying 570 sheep and 760 goats. The project has also supplied 175 Qts of different improved seeds and some 1652 farmers have been benefited of improved seeds and trained in modern agricultural practices. The project has supported the construction of 7 flumes to ease water conveyance to potentially irrigable areas. The supply of improved seeds has also been conducted by the project via the offices of agriculture and cooperatives. About 832,000 tree and forage plants have been planted over 3049 ha of land over physical soil and water conservation structures in 6 watersheds. Some 130 bee colonies have been supplied to 110 farmers; and 6 springs were protected/developed at 6 villages. A well organized early warning system has been established in coordination with Kombolcha meteorology directorate and office of agriculture where farmers were part of the agricultural forecast system.

Results: The communities in the 6 kebeles of kalu woreda are able to increase their income by many folds. Many of the beneficiaries have created assets that will help them in coping with shocks during fragile conditions and in case of drought. Feedback from the community in the kebeles was overwhelmingly positive. Participants of the project said taking part in the project has helped them to get better than they used to be and have developed confidence that they will never give up resisting shocks in worst conditions related to drought and climate change. They have created assets, and skilled in mitigating and adapting drought and climate change impacts.

Evidence: Representative beneficiaries and woreda level steering committee members were interviewed to evidence the performance of the project activities. They all ranked the accomplishments as the best they ever had. The details are discussed here under.

What helps to successes?

The design of the project, the flexibility in identifying specific activities, the PMU and the nature of the project has been cited as at the truck during the implementation of the project. These all along with the very determined commitments of the Project manager, the UNDP CO & Regional Office, the woreda steering committee and the National Project Coordinator had the thanked contributions for the project to where it is now.

Revolving fund: A system to serve more beneficiaries

The woreda project steering committee staged successive meetings to decide on the modalities of helping the implementation of the project and looking for best strategies of supporting the communities. The selection of the beneficiaries, the procurement process and the management of the sheep and goat support as an asset creation, seeds supports, fixed asset supports were well discussed during successive meetings of the steering committee. The steering committee decided to make supports in a revolving fund for the sake of reaching more beneficiaries and for easing the sustainability of the project activities. None-fixed asset supports were decided to be transferred to next level beneficiaries, with refunds of in-kind. Small animals and improved seed supports were decided to be on a revolving fund system.

In the asset creation activities, it was decided that 5 sheep/goats to be given to one household as 1st level beneficiary and the first level beneficiary to pass the first 5 new born shoats (at the age of 6 months) for the second level beneficiary, who are having queue to receive. The seeds and bee hives and bee colonies supports employed the same system, but fixed assets were supported through a cost sharing system where the costs were subsidized. This system is said to be a kind of revolving fund on in-kind support loan method, which all beneficiaries have been said as agreed. "This kind of supporting the community would have a multiple of advantages. More beneficiaries could be supported, and there will be skill transfer from the preceding and the succeeding beneficiaries. The system will also help the project activities be sustainable." Mrs. Wubua Mekonnen, GEF Program analyst informed. She added, "The idea is very important and I hope will bring success for the implementation of project activities. The first level beneficiaries have fully agreed to pass the first born/produces to the succeeding beneficiaries, and the second level beneficiaries are also agreed to learn from the preceding beneficiaries."

Mr. Mohamed Yasin, the chief administrator of the woreda agrees with Wubua's ideas. "The system has been exercised by different projects but the successes had not been as such encouraging. When the steering committee sat for a discussion on the adoption of the system, some of the members had concerns. After thoroughly discussing on the issue we decided this to be fully implemented, with cautions. The decision includes the full participation of the beneficiaries during the entire implementation of the activities. This, I think, has contributed much to the success of the accomplishments in this regarded". Mr. Mohamed concluded. The beneficiaries have also expressed the suitability of the support strategy.

Small ruminants create assets to cope with drought & climate change

In all the six kebeles, about 268 farmers have been supported with sheep and goats as first level beneficiaries where Tayitu and Endris are among them. Yeshe is supposed to be second level beneficiary but she is working on the management of the sheep along with Tayitu, from who she will be receiving 5 new born sheep.

Yeshe helps Tayitu in managing the sheep

Yeshe Mohamed, who is 50, was so enthusiastic, telling the visiting team, the hopes she would be getting for 5 sheep of 6 months age from her neighbor as part of revolving fund system from the CwDCC project. The way the 1st level beneficiary (Tayitu Abate - who received 5 sheep) managed the sheep is an assignment for Yeshe too. Yeshe will be waiting for only two months ahead to receive the first borns of Tayitu's 5 sheep, all the 5 sheep have given birth.



"I am salivating", Yeshe said, "over the hopes I expected to get out of poverty and be able to feed my family and myself once I got a support of 5 sheep in addition to the cereal production we are enjoying". Yeshe has got an increment of 10 quintal of cereal production than last year, thanks to the CwDCC project and no more frustration to drought related shocks.

Yeshe, as second level beneficiary, does not have any hesitation to properly manage the sheep she will be getting from Tayitu, and properly pass the first borns of her sheep to the third level beneficiary. She is learning the knowledge and skills of sheep management from Tayitu, and is confident that she will deliver all best management practices and will manage better to get much benefit out of the sheep.

Tayitu was thanking Yeshe and her child (Seid Abdu) for their help in managing the sheep. Yeshe's family has helped Tayitu in fetching for water and feed for the sheep. Yeshe's child is also aware that they will be receiving 5 sheep from Tayitu, and is assisting Tayitu in managing the sheep.



This has sparked an enthusiasm in them to deal well in managing the assets created by the project. Tayitu and Yeshe are sure that the community will enjoy much more benefits than expected. They thanked the project for the support they got and be better

than their neighbors of non-project kebele. Mrs.. Se'ada Hussien who is 55 and married with 2 children had interrupted the discussion with Tayitu, requesting for a similar support from the project. "I am part of the community who deserve the support. I am here appealing for a kind of Tayitu." Se'ada talked pointing to the sheep and looking at the visitors. Tayitu advised her to quite, and continue tanking the project. The visitors asked the project manager about the selection criteria, and he claimed the criteria include commitment on previous performances. "She was not selected by the community for her commitments to act as a pilot/model farmer. The next time she could have the chance to be part of the project if the community agrees." He concludes.



Endris speaks the family's attest

Mr. Endris Seid who is 40 and a head of 8 family, was eager to air what his child asked to do for the goats support he obtained from CwDCC project. "Give a kiss for the organization who supported us in having these goats", a 6 years old child said to Endris while expressing her satisfaction in playing with the new borns of the goats, Endris witnesses. All the 5 goats at Endris family are entitled to the five children. Among the five goats four gave birth for male goats and one for female goat. The girl who is 8 years old and her goat born a female offspring does prefer consider herself luckier than her sisters and brothers for the chance she got to pass the new born goat to a second level beneficiary, and the next borns for her own. "I am lucky that I will have my own goat with the new borns belonging to only me once I passed the first born to a second level beneficiary" Endris's child said to her family, according to Endris.

Have more water to feed crops

About 150 farmers have been supported with geo-membranes for lining their water harvesting ponds, and water lifting, storage and application equipments to ease irrigation activities. In addition the project has supported farmers with fruit seedlings and vegetable seeds to ease horticultural production through irrigation. Many farmers who are supported this way have changed their livelihoods, and said are getting out of relief, through the creation of assets.

Graduated from poverty

Hussien Ahmed's family, who are living in Ati Ager village of kebele 04, are voicing the changes in their lives. "The purchase of clothes, food supplies and schooling materials is being covered from the sale of papaya in our home yard. After home consumption, we are selling papaya fruits at a total income of nearly 100 birr per week" said Dawid Hussien a 14 years old 5th grade student, and Hussien's boy. The family of Hussien are working with CwDCC project in many elements. The harvested water is serving the 400 m² home yard, where papaya, onion, tomato, carrot, beet root and other vegetables have been grown. His wife, Zewditu is also part of the asset creation program, where she received 5 goats as 1st level beneficiary.



"The supports from the CwDCC project including geo-membrane to line the two water harvesting ponds, the wing pump, water tanker and the hoses have helped us to produce two to three times a year. This improves our annual income by 90 folds. Before the project the annual income of the entire family was approximately lower than 3,000 birr, but following the supports we obtained and the good commitment of our family, I estimate the annual income reached more than 175,000 birr per annum. This income has been possible from the sale of honey from the three bee hives, sale of onion, papaya, other vegetables and fruits and from the field crops and animal products. Before the project our family was supported for food handouts for 9 months. But now we have graduated from the food support" a 42 year old Hussien Muhe who is a father of 7 witnessed for his success with the support from the CwDCC project.



Now the head of the family

The neighbors of Hussien, Ibrahim Ahmed 28 and his brother Seid Ahmed who is 41 have also benefited from the project activities. The two brothers do get the chance to be part of the project after they attend an experience sharing tour where 200 farmers of their kebele were part. They copied the experience of model farmers who used to produce vegetables and assist their family in supplying food. After the skills they obtained from the tours, they took part in the project activities.

They were supported with geo-membranes for lining water harvesting ponds, fruits and vegetables seeds supply, water lifting and storing devices and water application hoses. They have increased their family income by many folds, and are graduating from poverty.

Both of them liked to speak about their success, and here are Seid's witnesses. "My family had been supported for food supply for at least 6 months annually. Our 400 m2 home yard used to produce not more than 50 kgs per annum. Following the assistance from the UNDP CwDCC project the family income has improved by 75 folds. We are enjoying encouraging results from the bee hives we got from the project. Our children are getting sufficient money to attend schools, by which they don't suffer with clothes, and other schooling materials. We used to purchase clothes once a year, but at these times we are able to buy biannually. I had no single animal in my yards, but after the intervention of the project I am able to own 2 oxen, one cow and one donkey. This is a dramatic improvement in the livelihood of my family" Seid Ahmed told the visiting team at his home yard. "My name is Fossia Seid and I am 10 and 4th grade student. The last 1 year I am happy that we are earning more money for our domestic consumption, for purchase of schooling materials and clothing. I feel sweet when I ate cabbage at my dish, and feel I am having good meal". Seid Ahmed's kid told the visitors of their home yard.



Seid Ahmed, 41 was waiting for the visitors to show his garden and felt happy the time the visiting team went to his field. He is still witnessing, and here it is. "Before the project came to our village, my family considered me useless family head. This was virtually because of the

inability to feed my family. The time I asked my wife, Aregash, for an additional child she asked me ‘what are you going to feed the child?’, and I felt ashamed. We didn’t have peace in our family because of the deep rooted poverty. But after the project assisted me in getting motivation, helping my family and when we are able to produce more food, I am considered as the true head of the family. Thanks to the UNDP CwDCC project, my family income has increased by many folds, and we are getting out of poverty”. Seid concluded. The visiting time was invited to have two papaya fruits as a show of the family success, and we enjoyed before returning back to destination.

Bio-pest control helps

The CwDCC has technically and materially supported the establishment/formation and functioning of 6 IPM groups in all the target kebeles. The performance of the Alu Ager village of kebele 04 is witnessed by Seid Ali Shafi and Seid Ibrahim. Here it reads.

Seid has introduced a bio-pest control method into his farm through the adoption of IPM techniques. The IPM groups are producing bio-pest control methods in their kebele. Seid has described that he has reduced expenses for artificial pest control methods and saved the life of the bee colony he owns, which otherwise would have died of because of pollution due to chemical sprays on flowers of fruits and vegetables where the bee are feeding. Other farmers in the kebele are also benefiting from the bio-pest control techniques. In addition Seid is preparing compost for use for soil fertility, which will make his production a-total organic product.



The IPM group are working on the preparation of biological pest control liquids and they are experimenting the different mixes. Positioned at Ati Ager of KA 04, Mr. Seid Ali Shafi has detailed the visitors. “We have 24 members, and have got land for the construction of office and working house. The kebele administration has also provided the group with an agricultural land for experimenting different mixes and ingredients of the potential plans. The past season

we had a plot of teff, and we have tested some fruits and got encouraging results. For the coming seasons we will be working on the mix ratios of the plants we identified this year. Many farmers have also benefited from the bio-pest control liquids we prepared, for free, which I think might not continue a support for free. During the provision of the liquids, the users are trained on how to apply, and what precautions should they take during the spraying time. In this manner, we are planning to enhance the bio-pest control mechanism in our kebele.” Shaif (nickname) told the visitors. Mr. Legesse, is hoping that the team will be doing miracles. According to Legesse, the groups in all the kebeles are interested on what they are doing and are eager on what they are told to do so. “I know this sector is the area which should further be researched. If the group are supported and encouraged to continue with the current pace, they will do a miracle. I guess they will surprise researchers of the sector.” He added.

Irrigation: a solution for coping

The project has assisted the construction of 7 gully crossing structures, water harvesting ponds, the provision of wing & pedal pumps, and the provision of water storage and application materials. Different improved cereal crop and vegetable seeds and fruit seedlings have also been supplied by the project. Upon these supports the beneficiary farmers are transforming their family from food handout users to self reliant citizens. They speak about their success.

“He is a model farmer and is showing changes in the life of his family”, said Ayalew, witnessing the success of Ali Ahmed Ali. Ali has transferred his family from the highland setting to a low lying area where his ½ ha land is located. A head of 9 family (8 children and his wife) and 50, Ali is energetic to explain what he is doing on his irrigable land at woraba village of kebele 32. A variety of fruits and vegetables, grown at different times of the year using the CwDCC project assisted irrigation schemes, have helped his family earn more than 10 folds from previous times.



The discharge of the Felana River, they used to irrigate their fields, according to Ayalew who is soil and water technician, has improved virtually because of the conservation of the rainwater and the soil at the two major upstream watersheds/ catchments, which are feeding the river. This was possible because of the application of integrated watershed management activities

including the construction of physical soil & water conservation activities, the sowing & planting of different forage and tree plants and the protection of the catchment from roaming humans and livestock through area closure.

“The increase in the yield of the river has attracted more farmers to work on the irrigation works on their farms, and there are requests of similar in other areas”, Ahmed Kemal a development agent in the kebele briefed the visitors.



“Our food system is improved, where we are able

“Before the supports we get from the project, my family was in need of food supply from different government initiated relief based activities. I had ample cultivable land but only when the rainfall showed dependable distribution that I was able to feed my family a maximum for 6 months”, Ali said with regret. “In worst years where there was no reliable rainfall or no rain at all, I was forced to cut all my livestock assets for food supply and remain so destitute. But with the thankful support of the CwDCC project in availing improved cereal seeds and fruit & vegetable seedlings, the provision of material supports for the gully crossing structures, and the technical supports”, he added, “we are able to produce more from

“The farmers are enjoying supplementary irrigation to reach the rainfed crops to maturity and full scale irrigation to produce twice a year doubling their annual income, Legesse the project manager of CwDCC discussed. “This has doubled the resilience capacity of the community from drought and climate change”, Legesse stressed.

to have meals three times a day. We have constructed 2 houses, purchased water pump and storage tanker to scale up my production capacity”, said Ali, thanking the CwDCC project for the initial support. “I have spent more than 30000 birr for performing these activities”, he said, “and now I am hoping to get much more than I expended”. Ali’s family is being taken as exemplary with the success in their lives.

Safe water supply improves human & livestock health

“Oh thanks Allah! This time is the best time I had ever. We are having water in our area, which is 150 paces and is clean”, Mr. Endris, 40 and a father of 7, said “I have no words to thank those who brought the idea and practice of protecting and developing the spring in our village. The spring has long been serving the community but was not safe for drinking.”

Endris was in support of the implementation of the protection and development of Liwucho spring in kebele 31, owing to the hardship the community had in fetching water. As member of the construction and water management committee, he invest his time and labor to care the spring for the sake of the livelihoods of the community. “Water is life and there is no life without water. Life would only be life if and only if there is potable water. We shall work to save the water then we will live healthy and full of peace. The support of the project (CwDCC) in materializing the protection and development of the spring through supplying construction materials, technically managing the construction works, showing the way the community will be managing the scheme and related activities could only not be expressed in words of thanks”, said Endris, pronouncing the benefits they are getting from the water supply project.

Endris and his family are also benefiting from other activities of the project like the goat husbandry and are also supported with seed supply. But Endris do not want to make a comparison of the spring development with other project accomplishments, where according to Endris, the potable water from the spring is much more than others.



“We need 10 Legeses (the PM for CwDCC project) not one so that the community can get rid of drought induced impacts. Our cattle are also getting clean water and their health is improved. The wash basin constructed along with the spring development is helping the community in enjoying good sanitation and improved health”, Endris added. “Due to the protection and development of the spring in our village the time elapsed for water fetching has been reduced by 2 and half hours per trip, which our women are able to work on other activities. Misunderstandings among water users’ which used to be sources of conflicts has now totally avoided. The health of kids has been dramatically improved, which help them to attend schools.” Endris details the advantages of having clean water.

The woreda office of water resources has the witness that the support of the project in this regard is immense. Mr. Mekonnen, the delegate of the office has detailed the contribution of the project in materially supporting the water sources construction activities, in establishing water management committees and on the development of systems for the proper use of the sources. “This has un-replaceable contribution to the woreda community”, Mr. Mekonnen said.

A dramatic shift in the early warning information communication

Early warning information system established

Mrs. Rahmet the head of Kalu Woreda office of agriculture and member of the woreda steering committee of the Coping with Drought and Climate Change Project, has thanked UNDP for the exceptionally successful implementation of the project. She expressed that the early warning system established in Kombolcha/Kalu woreda is an exemplary and model activity that needs to be replicated in other areas.

“Drought has been seriously impacting lives in the woreda, as in other areas, virtually because of the poor early warning system in place. There was a mechanical analysis of hydrologic and agronomic data and slow & unreliable communication of the information. This has costed many lives for decades/centuries. The former early warning information collection and analysis system was a kind of non-scientific, based only on qualitative information from the events happening, without prediction from meteorological data. The slow and multi-tiered information communication was so weakly organized and lengthy which results in information distortion, resulting in failure to act accordingly” Rahmet detailed the previous early warning communication system. “But now”, she added, “the CwDCC project assisted early warning system in Kalu woreda, is well organized, well defined with clear responsibilities of all actors and very reliable.

Early warning data are collected periodically from the kebeles and analysis conducted at kebele and woreda EW team. Data collected from household rain gauges are periodically analyzed at kebele level by the farmers, and data from ordinary rain gauges and thermometer are collected by development agents and analyzed by EW team at woreda level, where the results are sent back to kebeles for decision making. Remotely sensed data are collected from satellite sources,

where NMA took the lead, and analysis made at kombolcha meteorology office. The kombolcha meteorology office reports the analysis results to the EW team, where the results are sent to kebeles. In this manner regular and systematic data collection, analysis, feedback, dissemination modalities were created at woreda and site level, through the support of the CwDCC.



“This is a dramatic shift of technology for the farmers, early warning team of Kalu woreda agriculture office, and Kombolcha meteorology branch office. The data collection mechanisms are so simple, the analysis mechanism is well organized, and the use of the analysis results by farmers is as simple as any agricultural activity. Therefore, there will be no gap in information communication and there will also be no information distortion. This, hopefully, will help the farmers to act successfully to get themselves ready for all conditions. The low cost and simplified early warning technologies shall in any circumstance be replicated to other areas and do get multiplication” Rahmet.

“This has helped experts to work very closely and produce dependable agricultural forecast results and clear communication system. In turn this has helped farmers to have reliable and timely information and proper communication from which they could decide on what to do and when. In cases of good times they will be able to get prepared for good agricultural practices, and in predictions of bad seasons they will be prepared for the upcoming hardships. For the bad seasons they could be looking for coping mechanisms” Rahmet stressed.



Farmers are forecasting

Farmers have also witnessed the benefits they got from this activity. Mrs. Zewde is verbalizing. "The household plastic rain gauge has helped us to make scientific decisions on the agricultural practices from which my family life is based. We are able to read the amount of rain fall, able to make decisions on when to cultivate our farms based on the amount of rainfall, and also has helped us in building confidences" Mrs. Zewdie 40 who is Hussien's wife witnessed her satisfaction on the supports of the project. "I am taking part in the agricultural practices along with my husband and children, which helped me feel confident in my life and consider myself as capable. I am able to use the rain gauge, and even my child Dawid Hussien is also capable of reading the rainfall amounts collected in the plastic rain gauge. Our family are now so happy and peaceful thanks for the support we got" Zewde added.

The household plastic rain gauge has been supported to 20 farmers in all the 6 target kebeles, and three ordinary rain gauges have also been installed three of the target kebeles to serve all the kebeles and one thermometer is installed to serve three kebeles. This activity is a special one and is hoped to build the coping capacity of farmers.

Felana River is trained and the agricultural lands protected from flood

The communities in two villages of kebele 31 & 32 had suffered a lot due the flood hazards coming from Felana River and the inability to produce from their farm lands. About 530 ha of land in the two kebeles has been abandoned of agricultural importance due to the deposition problem from the floods. The flood has been said to have damaged the community in an unbelievable way. The CwDCC project has replied for the requests from the community in helping them to protect the devastating flood which has happened due to the erratic/torrential rainfall forming floods passing over Felana River. The supports in the flood protection include the coordination of the community, provision of gabion and sack for the construction of the protection structures.

Floods are protected

Ahmed Kemal, a development agent of the office of agriculture of Kalu woreda, appreciated the entire activities of the CwDCC project in his kebele, KA 32. At this peak season all the farmers in woraba village were working on the catchment protection works in a campaign. Ahmed, 30, was the coordinator of the soil and water conservation work, but he asked the participants for excuse to leave for the then-flood affected area to witness the successes of the flood protection work at the Felana River.



Agricultural lands reclaimed

“About 256 ha of land only in our kebele, which before the floods was agricultural land, was highly damaged because of the deposition problem. Large and varying size boulders have been transported from the upstream of the Felana River and deposited at the level land in woraba village where many farmers were forced to abandon farming. The entire level field, currently covered by sugarcane and other plants and grasses, has been seen as a river route covered by river gravel, boulders and sand”, Ahmed Kemal said. “Look”, Ahmed pointed to the animals grazing in the field, “at this time the remains of the deposition are almost being covered by grass and the land is serving as grazing area, now animals are grazing on the fields reclaimed after the flood protection works”.

Ahmed detailed on what has been done with the support of the CwDCC project. “The request was initiated from the kebele community, and after approval by the project the community were organized to work on the protection work. Material support was entirely covered by the project, and based on recommendations the protection work was performed, which now is perfectly protecting the 256 ha land. For the protection work some 1000 units of gabion were used”, Ahmed added.

Grazing lands get back to serve the animals

After the river route was changed to follow the former route, farmers like Ayalew were able to come back to their farm for cropping and grazing. Ayalew is expecting 3000 birr from the sale of the sugarcane that he planted last year after the flood protection structure was constructed. He is planning to have more income to be added to his family from the anticipated sale of the sugarcane. “This year and in the coming times animals will be getting more feed from the grazing land”, Ayalew said, hoping more benefits from the animals he owns.

Improved seeds help cope with drought & climate change

The CwDCC project has supported many farmers in Kalu worada by supplying improved, early maturing and high yielding cereal seeds, procured from Sirinka Agricultural Research Center. These include teff, chick pea, haricot bean, mong bean, rice and other seeds. Some of them like rice are new to the locality and others are exceptionally drought resistance than the local seeds which suffer the impacts of erratic rainfall. The farmers are getting opportunities to cope with

drought through supports with these cereals, and are witnessing the benefits, with productivity increase from 22% from sorghum and 100% increase from teff production.

Dreaming for a further better

“I suffered a lot during drought times for the last half century. Thanks to the CwDCC project, I am dreaming better life to my family, 10 including my wife. The improved teff seeds are getting me dream much more income.” Mohamed Hassen 55 said. He added “The new seed is a short duration/early maturing crop, drought resistance and high yielding. It also has the capacity to resist unexpected high/torrential rainfall. I was able to produce six Qts of teff produced in a quarter of ha of land, which when converted to a hectare would be 24 quintals. This has increased my income by 2 folds. My family has increased the daily home consumption from two to three times a day, earn more income from the sale for buying clothes, schooling materials for students and other crops which we don’t grow, and also bought a cow. I have also an added income for the livestock feed from the teff straw. About 6 farmers who have been assisting me during the agronomic practices, have already taken the improved teff seeds that I produced last crop calendar. These farmers have learnt the skills I developed for managing the new improved seed, such as moisture conservation and fertility improvement” Mohamed detailed the contribution of the project supports.



The crop stand of the improved teff has attracted the attention of many farmers, who have collected the teff seeds from those who received from the project. Other farmers and experts are also happy of the performance of the improve seeds.

Rice is adopted

As well the rice production has also been considered as a good alternative for coping with drought and climate change. The introduction of NERICA 2 & 4 (rice), entirely from Fogera, to Cheffa valley has been said to have added capacity to the farmers to escape from drought and climate change impacts.



“We are able to produce 40 Qts of rice per hectare per year, which has very much increased the family income. Our families are able to buy clothes, school materials, and create assets. As well the home consumption has increased.” Ayalew details the benefits they got from the rice promotion.

Care for the environment: Cope with drought & climate change

Environmental degradation caused by deforestation, land erosion, and pollution is imposing difficulties to its inhabitants. Reductions in land productivity, loss of ecosystem and pollution have been cited as the main causes of loss of environmental comforts. The conservation of environment has an incomparable importance in scaling up community development. With this context the CwDCC has been working in the protection and management of the entire environment in Kalu woreda. With the support of the project encouraging activities such as environmental education, solid waste collecting and recycling, afforestation/greening activities have been accomplished in all the six target kebeles. This has been performed by establishing environmental management committees at the six kebeles and strengthening school environmental clubs. The woreda office of environment and land administration is working in coordination with woreda office of agriculture in the management of watersheds. Mrs. Fatuma Yimam, who is the process owner of environmental protection team at the woreda office of environmental protection and land administration, discusses what they are doing in protecting the environment. “We used to develop environmental impact assessment activities before any project comes to happen. The office is working in coordination with WOOA, in managing the environmental protection works like watershed management, and we are enjoying the fruits of these activities.” Mrs. Fatuma said.

Integrated watershed management matters

The woreda community are working in the management of watersheds, which would enhance their capacity to mitigate climate change. Farmers are witnessing. The visitors meet 18 farmers (3 were female) at Fiyel Ambo watershed who were called from the community working on the construction of soil and water conservation structures at the watershed. The visitors asked for what they were doing the conservation works. Ahmed Seid 45 and a soil and water conservation technician raised his hand and discussed the reasons. “We are here to change our lives through the conservation of the Fiyel Amba watershed. Upon construction of bio-physical conservation measures the watershed would be reclaimed and returned to productivity. Trees will be growing, grasses for animal feed, flowers for bees. We have observed that springs are recharged and are getting strong. The flood that has been damaging is now being reduced. We

have recorded a two folds productivity increase because of the reduction in soil erosion, and an increase in the soil moisture of agricultural lands.’ Ahmed highlighted.



Ayalew, who is also a soil and water conservation technician, has also shared Ahmed’s points. “In addition to the points Ahmed raised, the management of watershed would help people to mitigate climate change. We are suffering of drought, but if we need to relieve we have to protect the watershed. This could be possible if and if we adopt integrated watershed management principles. We are mobilizing the communities for this kind of development and we are harvesting the fruits.” Ayalew discussed looking for a support from the discussion attendants.



“I am not paying for the purchase of pillow and other household decoration equipments. It is now possible for me to make these items from plastics formerly damped as wastes” Aregash Ahmed said showing her produces. She collected plastic wastes from her fields and her neighbors, and produced household equipments for free. “This also has helped to make the environment clean from pollution. Had the plastics been thrown away, these items would have polluted/damaged the soil in blocking water and nutrient movement. As well if the plastics were burnt this would have contributed to the addition of green house gases to the atmosphere. This would add to the impacts of climate change, affecting vulnerable communities” a member of the environmental management committee, Hussien Ahmed described.



The environmental management committee members are producing plants such as vetiver, and other indigenous tree species and are planting on degraded lands over physical soil & water conservation structures as part of environmental management. School environmental clubs are also working on environmental education and solid waste collection activities at school compounds. Due to these interventions, people are learnt that the degradation of the environment contributes to drought and climate change fueling the vulnerability of the community.



The project is promoting energy saving techniques. In this context Jatropha, a known bio diesel plant, is being promoted for use for energy source. The plantation of Jatropha is also helpful in reclaiming degraded lands and checking erosion. Jatropha oil extraction equipments and jatropha oil consuming stoves have been procured by the project. This is supposed to reduce the cutting of trees for fuel wood collection, which is hoped to contribute mitigate environmental degradation and climate change.

Let farmers do themselves: they can

The CwDCC has started its implementation through consultation of the woreda offices and communities. The full participation of all grass root communities and government structures has helped the program perform successfully. This on the other side has improved the project implementation capacity of all actors. The building in the economic capability of beneficiaries

would improve their resilience to climate change. The entire project activities could be taken as capacity building activities, which in all means could capacitate the community and actors.

The project has supported the conduction of different training, experience sharing tours and similar discussion forums. The formation of community based associations and committees have also immense advantage in building the capacity of the participants. These events are discussed in the following sections. The chief administrator of the woreda, Mr. Mohamed has witnessed the basic elements of the project in capacitating the woreda population. “The project was managed by the woreda sector offices. We have learnt on how to design a project, how to monitor project activities and how to cope with challenges. The early warning system developed was not in the minds of the people here. New interventions such as energy saving through the use of Jatropha and cassava plantation have come to the woreda. These all have reminded the woreda sectors and farmer to look for different solutions for upcoming challenges. Now we are able to searching solutions. Farmers experimenting new techniques, and I hope will not give up looking for new solutions. What is support more than this?” he questioned looking strong enough to go high in managing development activities.

His ideas were also witnessed by farmers like Ali of kebele 04, Aregash and Seid of kebele Adame. Ali is building on what he has through the purchasing of water pumps, and expecting to be a leading farmer in his village, woraba. “One of the houses I built is supposed to use as a store for the produces from my irrigated farm. Upon storing I will be able to increase the quality of the products and would be able to sell at reasonable prices at good times. This hopefully will improve my family income, Ali discussed his ability to think high. Aregash is also able to read rain fall data from the project supported plastic household rain gauge. She has told visitors that she is able to read data and now she can forecast agricultural information, and is able to decide of farming practices.

Training and experience sharing tours

The project has supported the accomplishments of a multiple of trainings and experience sharing tours within and outside of the woreda. The participants of the training and experience sharing events included the beneficiary farmers, woreda and zonal experts. The details are included in each section, above at the respective sections.



Groups and associations

At the grass root level, all activities have been managed by different groups, associations and committees. In the course of its implementation the project has supported the establishment of these committees/associations/groups. With the full support of the project 6 environmental management committees, 6 IPM groups, 7 water users associations, 1 vegetable and fruit marketing group, and 6 potable water management committees. The groups/committees/associations are working on the proper management of the schemes they are supposed to manage. The group members have developed the skill and knowledge of working in groups are said to have been capable of successfully leading their personal matters, in the time of drought and changing climate. Woreda experts have also gained experiences of establishing groups and the good experiences of well managed groups. This has improved their expertise in similar areas. Mr. Mesfin Kassa, who is the head for the office of cooperatives of the woreda would like to share his views in this regard. According Mesfin, the groups have got the skill to manage development activities. "They are now organized, and have the capacity to defend their product use rights. A committee formed with 11 members is helping the groups in avoiding middle men in the marketing process. They produce much, and are also supported to sale for reasonable prices. This will have an add-on effect on the success of farmers in the strive to cope with drought and climate change." Mr. Mesfin added.

An independent witness: The author concludes

At the time of the discussion about the documentation of the accomplishments of the project, the program analyst Mrs. Wubua and the team leader Mr. Shimelis were happy that the documentation would voice the success of the project. "This assignment is tough. Take time, listen to the beneficiaries and take a look at the grounded activities. This, I hope will give you felicity." Wubua told me. "I am sure you will love the assignment. There are astonishing insights. Then you will applaud the performance." Shimelis added to what Wubua said.

Upon having these full of confident sayings, I started interviewing project performers, beneficiaries and take a look at the activities at the spot. During the first interview/discussion with the PM (Mr. Legesse), my enthusiasm adds another felicity, and I got strength to work further. The words of the UNDP staff were true that I was very much surprised seeing on what has been achieved, hearing on what the beneficiaries and non-beneficiaries wear speaking and looking at the previous pictures I got from the PMU.

The lauded words of Mrs. Se'ada at woraba village in kebele 32, were surprisingly tough to hear. She has learnt that the people in her village are on the way to escape from what she doesn't want to live with. The material and technical supports her neighbors are enjoying, make her nervous and speak loudly. This really was something people are interested to hear as part of an action they used to be part.

The assignment Mr. Endris took from his child to “kiss whom the 5 goat supports were from” has surprised those who were attending the interview/discussion session. I was along with 18 farmers, the project manager and the DA when Endris was speaking about his child of 6 years. We all were touched of his kid’s words. We have shared the happiness of Ali who constructed two houses, is able to buy motor pump and other materials for smoothing his way to be self reliance. I don’t think there will be much happiness than seeing, looking and being part of such stories. Felana River is no more depositing boulders, gravels and other debris on the level agricultural lands of kebele 32 & 31. The area is now covered with sugarcane plants and other crops. Animals are grazing on the reclaimed land. Ahmed’s happiness and Ayalew’s words are full of good thoughts. Looking at the gabion and sack made flood protection structures and the performance of the reclaimed lands, gives another surprise on the success of the project.

No word than hearing people are turning to be respected. Seid, once was considered as a useless family head, is now respected by his family, for he is able to feed his family. Seid’s home yard farm is full of fruits and vegetables, and he is happy about the changes in the lives of the family. We shared not only his papaya fruits but also his happiness.

I speak only few elements of the successes of the project, inviting readers to have a visit and get the chance to talk to the beneficiaries.

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