

A man with a grey beard, wearing a wide-brimmed straw hat and a bright pink long-sleeved shirt, stands in a field of young green plants. He is holding a curved wooden staff. The background shows rolling green hills under a blue sky with scattered white clouds.

# CAV

## CLIMATE ADAPTED VILLAGES

THE DEVELOPMENT FUND'S MODEL FOR  
LOCAL CLIMATE ADAPTATION

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ETHIOPIA

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**UTVIKLINGSFONDET**  
THE DEVELOPMENT FUND • EL FONDO DE DESARROLLO



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The Development Fund Norway offer support and partnership to local organizations in efforts to combat poverty and safeguard the environment. Our main goal is to support small scale farmers in their fight against hunger and poverty. Our programs focus on food security, climate change adaptation and local organization. The Development Fund Norway is an independent non-profit organization.

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Mulu Daba (55) is very satisfied with her son and daughter in law who bought cows financed by microcredit.

Trykk: GROSET™







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# 1

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## **CLIMATE ADAPTED VILLAGES ETHIOPIA**



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**T**he rain fails when it is most needed. It rains too much when there has already been enough. Temperatures rise, while plant diseases and pests are on the increase. Strong storms that destroy roads, bridges and crops are becoming more common. The consequences of climate change are not a future scenario – they are here now-.

Climate adaptation is all about making choices that reduce the negative impacts of a changing climate. Poverty is one of the factors that make communities and individuals vulnerable. Through adapting to changes in climate, local communities become more resilient in the face of climate shocks and economic difficulties. That is why climate adaptation must take both environmental and socioeconomic issues into account, issues that secures development among the poorest.

**Climate Adapted Villages (CAV)** is the Development Fund's community-based approach to climate adaptation. Since 2012, The Development Fund has piloted the CAV model in Guatemala, Honduras, Nicaragua, Nepal, Ethiopia and Malawi.

The ultimate goal of CAV is to increase the adaptive capacity of farmers and indigenous communities by strengthening knowledge of climate change in the communities and enhancing their capacity for planning and local governance.

The Climate Adapted Village model utilises participatory approaches to empower communities on climate-related issues and thereby increase



**Gete Regasa** (38)

awareness and promote attitude changes in the communities themselves. In most cases, the micro-watershed is used as the unit of planning, and major emphasis is given to collective management of common resources such as forests, water, energy, soil, and crop and livestock diversity.

A key element of CAV is to ensure that communities remain at the center of all processes, from the climate vulnerability assessment, to the planning of mitigation and adaptation measures, and to the governance of adaptation plans and available funds.



A group of approximately seven women are walking in a line through a lush green field. They are wearing various head coverings and colorful clothing. In the background, there are tall trees and a dense line of reddish-brown bushes. A large, white, stylized number '2' is superimposed over the center of the image, partially obscuring the women and the background.

# 2

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**2 CAV IN 1-2-3**



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**T**he Climate Adapted Villages model aims to make farmers and local communities capable of organizing themselves, identifying climate threats and practicing climate smart agriculture, enabling them to adapt to the current consequences of a changing climate. The model focuses on building capacity and expertise in local communities, so that they can manage their own recourses and implement measures for climate change adaptation, in a systematic and effective way. Communities gain a strong ownership to the activities, and the method can be transferred of other areas. Many countries want to do something on climate adaptation, but hesitate to allocate money directly to poor people in rural areas. However, more climate adaptation measures should take place where people are the most vulnerable, i.e among poor people in rural areas.

The main focus of the CAV model is promoting a collective management of community resources such as forests, water, energy, soils, plants and animal diversity. A key element in CAV is to ensure that communities themselves participate, and take center stage throughout the processes, from the climate vulnerability assessment to the planning and further implementation of the adaptation plan.



**Meseret Admasu (26)**

The CAV model contains three main stages. The first stage, to know, means to gather knowledge and to analyze the problems (climate vulnerability assessment). A second stage, to do, addresses the planning and design of adaptation measures and their implementation. The third stage, to sustain, addresses sustainability issues, which go beyond the project period. It is about maintaining and securing the projects' achievements in the long-run.

# 1. TO KNOW

## **AWARENESS (PARTICIPATORY VULNERABILITY ASSESSMENT)**

The first step of CAV is to increase awareness and knowledge among farming and indigenous communities of current and potential future local impacts of climate change. The knowledge is acquired through participatory learning and based on both local observations and scientific knowledge. By the end of the assessment, communities will be able to identify the main climate threats to their natural resource base and livelihoods and viable ways to mitigate and adapt to such threats.

# 2. TO DO

## **COLLECTIVE PLANNING AND ACTION (ADAPTATION PLAN)**

The project makes use of a participatory planning method based on the information gained from the vulnerability assessment. The community is guided on how priorities may be set, on the basis of the resources that are available to the community. The Development Fund provides funds for the community to manage and use in the implementation of their own adaptation plan. Emphasis is put on collective action and local ownership and accountability. Since the unit of planning, in most cases the micro-watershed, is larger than the village, the territory and common resources cover more than one community. This means that the steering committee of the adaptation plan should have representatives from different communities as well as gender balance.

# 3. TO SUSTAIN

## **GOVERNING THE PLAN, MONITORING AND SCALING UP**

The third component of CAV allows communities to see beyond their local actions and the limited life cycle of the project.

Funding is given directly to the community in order to allow participants to implement the adaptation plan within a time frame that is suitable for the realization of the activities that the plan presupposes. The funding plays a key role in building up the community's capacity to adapt, but it is not in itself enough. If collective adaptation plans and actions are to be sustained, community mobilization and advocacy directed at local decision makers are also required. Only thus can we be assured that investments and support for local innovations will continue to flow to the community.

The CAV approach will in time help local governments acquire political and economic support for community-based adaptation and mitigation initiatives within their territories.

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# 3

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**CAV IN PRACTICE  
A GUIDE TO CLIMATE ADAPTATION  
ON THE GROUND**



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**B**efore starting a CAV process, partners and local staff must receive a proper introduction to the CAV method. Training on climate vulnerability assessment tools is a condition for achieving a good participatory process. The Development Fund, together with local partners that already have relevant experience, facilitates the training on participatory vulnerability assessments. People from the affected communities also take part in the training. During the training sessions, partners and local staff test the different tools available, and train their skills as facilitators of participatory processes.



**Fantaze Legesse** (25) offers coffee to the women from the savings cooperative.



# CLIMATE VULNERABILITY ASSESSMENT

People in rural areas use their own experiences to analyze how changes in local weather could threaten their livelihoods. A local partner, such as a local NGO or a community-based organization like a farmers association or cooperative, facilitates the process. This partner has knowledge about local power relations and institutions and will select the participants attending all stages of CAV. This local partner will also facilitate and write down the vulnerability assessment results and the adaptation plan. It is essential that the entire process becomes participatory; women and men should be represented and participate on equal terms. Youth and local authorities should also be represented. Taking into account women's needs, and their contribution to local livelihoods is crucial for the vulnerability assessment, and for the further design of climate adaptation measures.

## The project area and the participants

The scope of the climate vulnerability assessment will vary depending on the context and area covered. In some places the geographical project area is limited to a micro-watershed, in which several villages interact in the territory. In such cases, representatives from surrounding villages will participate in the vulnerability assessment process and further design of the adaptation plan. When CAV is applied within a natural geographic boundary, the vulnerability assessment becomes both more consistent and comprehensive. Natural resources use, within a micro-watershed, affects the resource base throughout the whole area, and affects inhabitants upstream and downstream. When all these villages are included in the project, it strengthens the possibilities for cooperation on issues that will affect the whole micro-watershed, such as quality of and access to water. In order to achieve long-lasting results, climate adaptation requires looking beyond village administrative boundaries and micro-watershed, facilitating the coordination among local stakeholder groups within the wider catchments, municipalities, and markets. Long-term climate adaptation depends on communities working together, co-ordinating across cooperatives, and advocating through farmers' federations. CAV gives communities the opportunity to act beyond their own area, and identify challenges that are shared across municipalities.

Our local partners identify relevant representatives from the local communities participating in the CAV initiative. The Development Fund Norway requires that 50% of participants are women. Although women are important actors in the local economy, their contributions is often underestimated – even by women themselves. Therefore, it is important to focus on women's needs from the beginning of the process, and to make sure they are being addressed consistently in the design of the adaptation plan and in prioritized activities.





**Almaz Getahun** (45) is chairman and **Fantaze Legesse** (25) secretary in the women's savings cooperative in Yobi Dola.

## THE VULNERABILITY ASSESSMENT

When members of the group begin to work on the vulnerability assessment, it is important that the facilitator of the process is a good motivator, in order to ensure that each participant understands the importance and purpose of CAV, and values their contribution to the process. The facilitator should address the issue of climate change, and ensure that the necessary information is provided, so stakeholders can participate more actively. Using highly skilled people and reports that describe the situation in the specific country or region is crucial for the quality of the climate vulnerability assessment. If the group is well informed, motivated and understands their role in the process, the facilitator can employ diverse vulnerability assessment tools (see section below) to gather traditional

knowledge related to local climate, and its impacts on people's living conditions in the area of analysis. The facilitator should have sufficient knowledge, both about the methodologies and the topics, so he or she is able to explore important questions that may arise from group's work during the vulnerability assessment process.

In order to conduct a good climate vulnerability assessment, it is necessary to have at least two full day sessions. Relevant information should be provided to participants in each session. It is important that the same participants are attending all sessions, so the local partner should ensure that participants do not change between the first and the second session.



# WOMEN ARE KEY ACTORS

Rural women are key players in social and economic development in most developing countries, despite the fact that they generally have far less access than men to resources such as land, capital and technology. Women's role and contribution to local development is often less visible and not properly recognized. Identifying women's needs, and working towards fulfilling them, is an important step in understanding climate change vulnerability at a community level.

The Development Fund encourages women's participation, by insisting on involving women in decisionmaking in all steps of the CAV process. Women take part in the vulnerability assessment, planning and implementation of measures and are also involved

in sustaining the activities in the long-run. Women should also get access to available funds, either as individuals, or as part of larger collective investments, such as local seed banks. The steering committees governing the adaptation plans should always consist of about 50% women. These committees make sure that the activities are implemented according to plan, and that funds are efficiently utilized in a transparent way. In most cases capacity building is needed, especially for women, so that they can play a key role in the management and monitoring of the adaptation plan. Those facilitating the process must ensure that necessary conditions are in place so women can participate actively in decision-making and not just on paper.





## TOOLBOX FOR CONDUCTING A VULNERABILITY ASSESSMENT

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<sup>1</sup> CARE International has developed a toolbox for community based climate adaptation. The Development Fund and partners use several of these tools. Some examples of tools used are the following:

- **Vulnerability Matrix:** Identification of various threats to one's livelihood, and who has control over, and access to, key resources. It helps to identify current coping strategies and to explore new ones.
- **Risk Mapping:** Identification of specific areas and resources subject to specific risks.
- **Risk Prioritization:** The community compares different types of climate risks and then decides which hazards have the greatest potential impact on local livelihoods.
- **Seasonal Calendar:** Used to assess climate information for better planning, identifying periods where one is particularly vulnerable, and analyzes changes in seasonal activities.
- **Activity Clock:** This tool identifies how men and women spend their time, and what their daily activities are. The tool is particularly suited to highlight women's voice and role in local communities, and the importance of integrating their needs in further planning.

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1. Se <http://www.careclimatechange.org/tk/cba/en> og publikasjonen Climate Vulnerability and Capacity Analysis. Handbook. (2009).

## THE ADAPTATION PLAN

### Vulnerability Assessment Report

Based on the participatory vulnerability assessment, a vulnerability report is prepared. In preparing the vulnerability assessment report it is recommended, whenever possible, to use available statistical and scientific data on the local climate impacts. In most cases, there is little or no scientific data available at local level, but data at provincial or national level can also be used in order to understand the wider context, and to underpin traditional knowledge and local information from the participants.

Additional data lends more credibility to the vulnerability assessment report. Relevant data can be found in national action plans for climate adaptation and in national climate policies and plans (if they have specific goals for sectors or regions). Data can also be found in technical reports, and scientific studies, which

link climate with agriculture, crops, natural resources, and also those linking climate with poverty issues. The challenge is, as mentioned, that most results of such studies can not necessarily be scaled down to a local level. However, it is possible to compare trends at the macro level with gathered local observations; and on this basis outline some future climatic trends relevant for the local context.

The vulnerability assessment report itself will be written by a group formed by professionals from the organization that guides the entire CAV process. They finalize the report, which is then presented and validated by participants from the communities and other relevant stakeholders that took part in the vulnerability analysis.

The vulnerability assessment report is the most important input for further design of the adaptation plan. The facilitators and the participants study the



vulnerability assessment report together, in order to find out which activities are relevant and feasible to begin with, and which ones are prioritized by local communities to become part of the adaptation plan. The Development Fund allocates funds for the implementation of the adaptation plan; information about budgets should be available to the group before the planning process begins. The vulnerability assessment report can be very comprehensive, but the adaptation plan contains only what is realistic to implement with available funds.

### The steering committee

During the planning process a steering committee is selected. The steering committee is in charge of managing the adaptation plan. There are criteria's for selecting steering committee members. The Development Fund requires that participation of women and men are on equal terms. The steering committee members are selected at the second or third planning session; in addition, they have to be approved by local authorities in the community. The steering committee should meet regularly after the adaptation plan is completed in order to ensure its implementation. There are also subcommittees operating under the steering committees. Subcommittees are responsible for diverse initiatives and activities, such as health issues, education, water or agricultural management.

### Financial resources

When the adaptation plan is in place, The Development Fund allocates funds to the community for the implementation of measures in the plan. CAV-funding belongs to the community. The steering committee manages the funds, but a different organization (a cooperative) with experience in good financial management will assume the responsibility of administrating the money.

The funds allocated to the community are used in correspondence with planned measures prioritized by the steering committee. Funds can be allocated in microcredit systems and given to individuals as loans,

for purchasing tools for commercial purposes, such as machinery or building materials. Funds can also be used on larger investments at community level, for instance development of infrastructure, or the establishment of local seed banks. Small loans to individuals are relatively easy to monitor and the repayment rate is relatively easy to trace. Greater community investments are somewhat more complicated, so in order to cover maintenance costs it may be necessary to establish compensation systems. The formulation of such compensation systems should be discussed during the planning process; otherwise the members of the steering committee will neither have enough information, nor realistic alternatives when prioritizing between different activities.

### Green interest rates

The microcredit loans granted to individuals are used for commercial and productive activities, and are paid back as ordinary loans with fixed interest rates. Borrowers are also obliged to pay "green interest rates". This means that those who receive loans must also implement climate adaptation measures on their own property, for instance soil conservation practices or planting fruit trees. What kind of measures are considered as green interests, are determined by the steering committee, and should be based on the measures already identified in the adaptation plan.

**Gete Regasa (38)** with here son **Tariku Belacho**.

The family received a cow from the cooperative and are happy that the children get extra vitamins and proteins from the fresh milk









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**CAV IN ETHIOPIA**



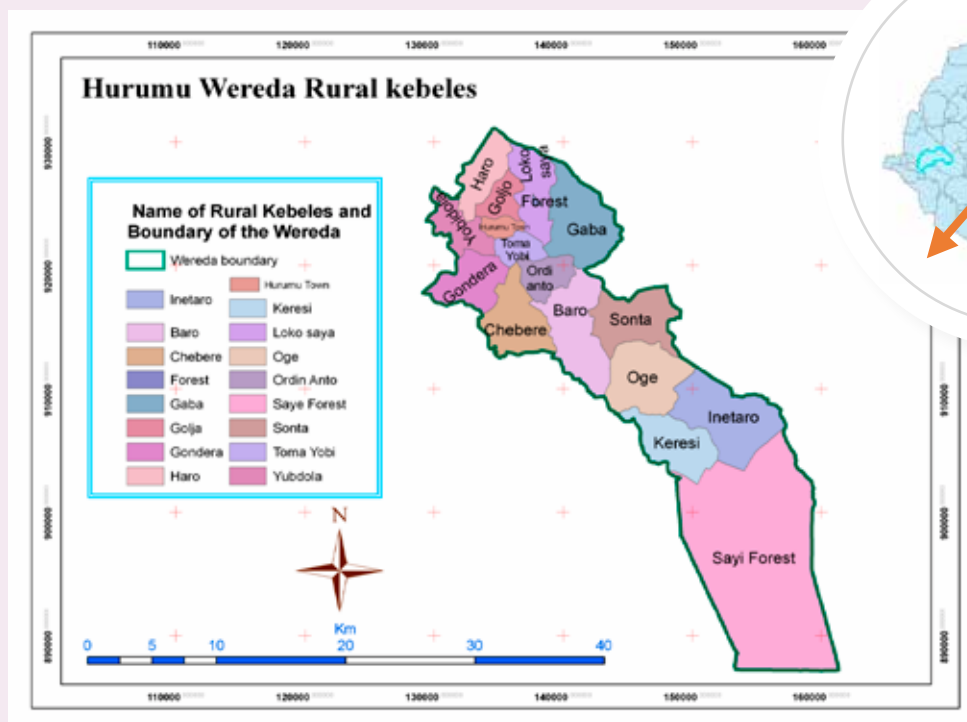
**C**AV in Ethiopia was launched in 2012. The process began by training partners in the use of participatory Climate Vulnerability Assessment tools. CAV training was carried out in Addis Ababa in 2012, facilitated by The Development Fund Norway in cooperation with its Ethiopian office.

CAV in Ethiopia forms part of a project known as “Integrated steps for climate change adaptation,” which is managed by our local partner, Ethio-Wetlands & Natural Resources Association (EWNRA). The project has been implemented in Yobi Dola, Haro, and Goljo kebeles (rural villages) in Hurumu District (Hurumu Woreda), located in Oromia Region, Ethiopia.

Food insecurity, low income, deforestation, rainfall fluctuation and unreliability, and early drying out of springs are among the problems in Hurumu District. So far, CAV has created awareness among communities in three gotts (villages)

of the impact of climate change on local weather conditions and livelihoods. Three different villages participated in the climate vulnerability assessments and the design of local climate adaptation plans. The climate adaptation plan combines good practices for soil, water and forest management, with income opportunities for local villagers.

These activities are not different from those of other development projects, but the CAV model gives responsibility for the governance and sustainability of funds to the community. A women’s savings and credit association manages CAV revolving funds, and also administers adaptation funds through the governance rules of their adaptation committee. A climate adaptation plan is matched with seed money. Villagers have a stronger voice and responsibility for drawing in additional resources from governmental and other donors.





# ORGANIZATION OF CAV ETHIOPIA



CAV was implemented through a watershed committee that oversees the implementation of the adaptation plan. The watershed committee of CAV has responsibility to ensure smooth implementation of the adaptation plan. It leads community discussions, communicate with the Kebele (local) administration for any abuse of resources. The village (got) level cooperatives, and women saving and credit cooperatives – SACCOs, are operated by women to improve their livelihood bases and reduce pressure on the forest; cutting trees to sell in the market. People working in the watershed committees and the SACCO members are inhabitants of the same village; the women are normally the member of the SACCO and serving in

**Almaz Getahun** (45) is chairman and **Fantaze Legesse** (25) secretary in the women's savings cooperative in Yobi Dola.

the SACCO committee (making decision on the CAV finance) and their husbands can be serving in the watershed committee of CAV. The women and men are working jointly to create climate resilient families and village (with better natural resources management and use capacity, better economic status, food security and wellbeing).





# First things first



**Aweke Demise (42), organizer and board member of the cooperative.**

– There's a lot we want to do, and through CAV we've learned to face the most important challenges first. We've agreed to help the poorest of all first of all, and that's why we've given cattle, plants, seeds, and fruit trees to some families. We're already well under way with the tree planting, and as soon as we succeed in one area, we move on to the next, and so we expand our activities - little by little. Our fields need

irrigation and we need water for drinking, and this is also coming along, we can already see that there's less erosion on the hillsides. What we would really like right now are some more avocado plants and other seeds, because we're running short on these, says Aweke Demise (42), member of the board of the Bikutu cooperative.

## **We've learned to face the most important challenges first.** Aweke Demise (42)

Tafese Tegein (71) is a member of the council of elders and has long experience with projects promoted by the Ethiopian government.

– Often we were simply mistreated by the people who came to start projects of various kinds. Now, things are different. Since we get to participate actively, we learn new techniques, and now we know much more about the how the climate is changing and what we can do to protect ourselves, he says.

– When I was young, the rainy season used to come when it was supposed to. Now it rains a little now and

a little then, it's difficult to plan when to plow, sow and harvest. The population of this country is rising and people need more land. This puts pressure on our natural resources. We've got to learn to be wiser, to save water and improve our irrigation works so we can grow other things, not just maize and teff. I'm very happy with the terraces we built with multipurpose grass. They stop the soil from draining away, and the grass is good for animal fodder - and for house building too. The future looks brighter now, concludes Tafese.

# Anchored

**Tamiru Ademe (27), the government's man.**



Tamiru Ademe (27) is the representative of the government and works with the cooperatives in Hurumu Woreda. As an agent of the Office for Cooperative Development, he collaborates with the boards of the various cooperatives and coordinates closely with EWNRA and the Development Fund.

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– At our office we're completely dependent on cooperation with good Non-Governmental Organizations (NGO's). The government sees this as a fine opportunity for promoting development. We get the cooperatives going and the NGO's facilitate their activities by contributing knowledge and funds.

We started the climate adaptation process from zero a few years ago and since then things have gone very well. We're particularly enthusiastic about the savings and microcredit operation, since it's often hard to convince the women that it makes sense to save, and it can be difficult to organize the savings securely. While private lenders operate with very high interest rates, conditions at the cooperatives are much better.

We make sure that the cooperatives get official approval and that the savings cooperatives have the necessary permits to engage in banking activities.

We can also contribute with sanctions against farmers who cultivate for example bananas or eucalyptus, which consume too much water in wetlands or from water sources, or who burn down forests and fell trees illegally. We would be very happy if the projects could be scaled up and more families could improve their living standards. As stakeholders we will contribute!

**Alebacchew Feyisa (24), the village CAV agent.**



To ensure that our work is upscaled and continued after the Development Fund terminates its activities, we give education and training in CAV methods to a large number of government employees. Alebacchew Feyisa (24) has received such training and now works as a CAV agent in the villages.

– For three years we've worked with support from the Development Fund and EWNRA. Before starting, we discussed the problems with the committees: longer dry periods, deforestation, erosion, the potential for irrigation, and people's living conditions in general.

After doing the vulnerability analysis we started activities to protect the soil, among other things by planting what we call "multipurpose grass". We distributed beehives and water pumps, and started a microcredit system. Many families received a new breed of cow that is resistant to disease, has better drought tolerance, and gives more milk than the species most people use. Here in Yobi Dola we're involved with three gotts (villages) with 125 households, and others are eager to join. We've learned a lot, and as soon as we're able, we'll expand our activities and take along the experience we've gained here to new locations.



# New deal

**Store owner Kedija Bakro (32)**  
**Kedija's daughter, Ramatu Faruk (17)**

In a room in the family's house, Kedija Bekro (32) has set up a small store. On the counter stand a pair of scales and from the shelves behind hang candies, ball-point pens, soap, paraffin and pasta.

– I've completely changed my ideas about saving, says Kedija Bekru (32). As a member of the savings cooperative I've gotten a microcredit loan of 2000 birr (USD 96). I used the money to start this store, and now I have my own economy and don't need to work on other people's land or as a maid in other people's houses. We have a son in 8th grade and a daughter in 10th grade, and it's thanks to the store that they can continue in school. So the saving and microcredit helps the whole family.







## BRINGING BACK THE FOREST

### SILK OAK

*Grevillea robusta*, also called Silk Oak, is a fast-growing tree with evergreen leaves. It can be grown together with coffee plants and maize as a replacement for lost forests. The leaves make good fertilizer and the bees are particularly happy for its flowers.



# Bringing back the forest

Abebe Degefu (37) has planted 3000 *Grevillea robusta* on his hillsides. Initially he has bought 6000 seedlings and planted. Later on as the adaptation project comes to his village he has taken more seedlings and continue to expand his plantation and in total he has now 3000 seedlings at different growth stage. He received 600 seedlings from ENWRA. His neighbour Hailu Daba (60) has come over to learn about the tree planting.



This entire hillside in Haro was nothing but earth and rock before Abede planted trees.

– We used to grow teff here (a local food grain that is used to make the soft griddlecake injera that is eaten with all meals in Ethiopia and Eritrea), but it didn't grow very well, since the soil washed away and the grain got no nourishment. In the end there was nothing here at all, not even grass!

We got information and training through EWNRA and what we heard about climate change scared us. I received the first 600 seedlings as a gift and started planting two years ago. It will be another eight years before I can take out any timber and make money on this, but in the meantime I'm planting cardemom and with time I'll add coffee plants that thrive in the shade of the trees. And since the bees love the flowers on these trees I hope to get some beehives too.

Abebe shares his experience with his neighbours and most of them are eager to learn more about this form of soil protection. One of them is Hailu Daba (60) who sees that Abebe has made some smart choices.

– I have old eucalyptus trees on my land and it's high time to think about replanting. When I was a boy, this whole hillside was covered with forest, but then we chopped down the trees little by little, and finally there wasn't a blade of grass left, just red earth, says Hailu Daba.

Hailu is concerned about the changes in the natural environment around him.

– Our cattle never used to have diseases, but now it's a big problem. We get training and knowledge about the changes in the climate, and we use this knowledge to think about the problems and look for solutions.

In the neighboring village, Yobi Dola, the farmer Ishetu Taye (24) is also planting *Grevillea robusta*. His plan is not to regenerate the forest, but to plant trees on his teff field to make shade for the grain. Ishetu has also received multipurpose grass and uses it to hold on to the soil in his maize field.









# KNOWLEDGE IS FOREVER

**Gemechu Nigatu (47) is kebele (village) chairman; Elias Mitiku (24) is kebele manager.**

In the Goljo municipality, the inhabitants of five villages have formed the Dederara cooperative, which organizes the CAV work. The climate challenges are the same here as in the neighbouring municipalities, but here the farmers focus particularly on drinking water and irrigation.

– We are five gotts (villages) that have joined together in a cooperative to do CAV work. In the vulnerability analysis we concluded that we have to preserve the soil, the woods and the water. We have many problems with erosion, deforestation and access to water. And it seems like it's just going to get worse, says chairman Gemechu Nigatu (47).

Gemechu continues to talk about the simple irrigation system they have built – simple, yes, but a tough challenge in the rugged terrain.

– But now we're glad we did it. There are so many who benefit from the irrigation works and quite a few of us now have large harvests of vegetables and fruit, he says.

Gemechu knows very well that the Development Fund's presence in the area is of limited duration, and that its work will be taken over by the cooperatives and local authorities.

– The CAV project will be phased out, we've known that from the start, but we have so many projects going; the savings, the knowledge and commitment, they won't disappear. But I'll be glad if more of the villages and hamlets around here get to join the CAV work. We'll all profit from that.



**Elias Mitiku (24)** is a village chairman and talks about the CAV work that started in 2013 with a vulnerability analysis. At that time the members of the cooperative concluded that climate-related measures must be combined with an effort to improve living conditions for the most exposed families.

– We started a micro savings cooperative and soon had nearly two hundred members who contribute a small amount every other week. Today, they have 192,814 birr (USD 9,214) in the bank. In addition to our savings we have received 375,000 birr (USD 17,920) in support from EWNRA. So far we've distributed twenty cows to families that needed support and 36 unemployed have gotten beehives. We also set up two water pumps and built an irrigation system.

**The CAV project will be phased out, but we have so many projects going, and the knowledge and commitment will not disappear.**

Gemechu Nigatu (47)



To start with it was hard to get people to save, but we were trained well and spread our training to others. When our members save, they get access to microcredit, and this means new opportunities. Several people have bought cattle, which give the children milk and the family extra income. Many have built better houses, and with the irrigation works in place we can grow several different kinds of vegetables and fruit. This gives people a more varied diet. We could have done much more, though, if we had more seeds and more volunteers to give training.

As in other villages and hamlets where CAV work is under way, the government sends agents trained the Ethiopian Governments as part of the support to cooperatives in the country. Here in Goljo, Geremewu Firisa represents the authorities.

– EWNRA's representatives can always be contacted for discussions and advice, so we work well together. Many farmers have planted multipurpose grass which has improved the quality of our soil greatly. And then there are a number of families who have planted pineapple. This is unusual in this area, but the first attempts are under way and the prospects look good. We're trying avocado too. The farmers in the area get more and more interested when they see the good results, says Cooperative Development agent Geremewu Firisa (49).



– I'm very happy about everything that's happened. My life has become much better after I joined the cooperative. I got a cow and it's having a calf soon, and I also received microcredit and bought another cow. I used some of the money I lent to buy seeds, and now our family grows so much fruit and so many vegetables that we eat well and can even sell our surplus on the market.

Since the savings and loan cooperative started up in Goljo Kebele, 104 members have received loans and 74 of these have payed back the entire amount. 30 debtors are behind on their payments, but several of them tell us that the sheep they have bought for their microloans now are expecting lambs, and then they can pay back their loans.

During the second round of lending, 88 families from the municipality had their loans accepted.

#### **Jemanesh Obsa (28)**



– For us women the savings and credit cooperative exceeds all our expectations, says Jemanesh Obsa (28).

– According to tradition we should stay indoors and cook and do housework, and it's very unusual that women have economic freedom. Now we get to go out and talk and discuss with other women and with the men. Our knowledge about the climate situation and about women's rights is increasing, and that's very good!

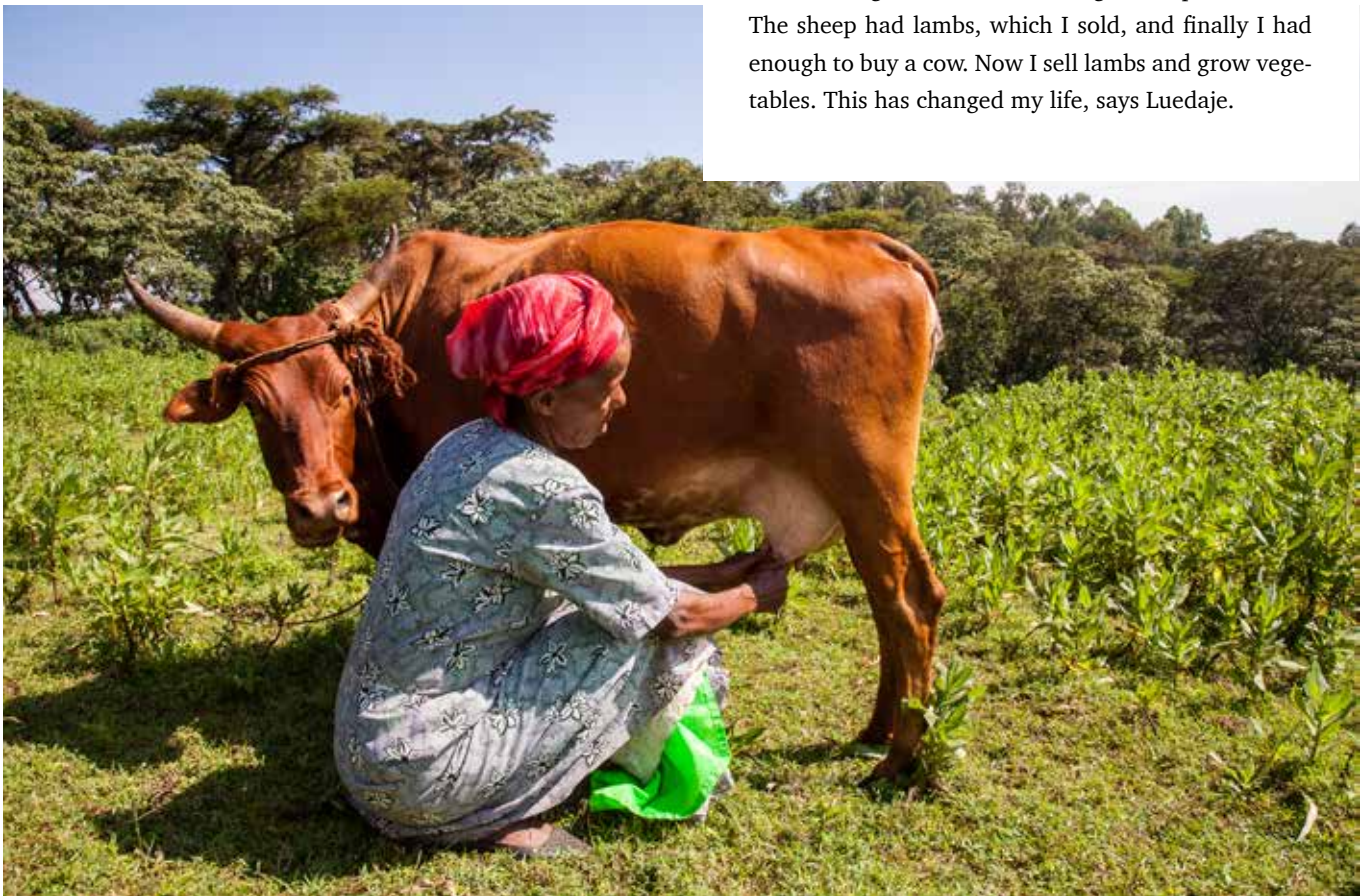




**Degitu Gemechu (70)**

– When EWNRA taught us about CAV work it really opened up my eyes. Before, I didn't know what a 100-birr banknote looked like. Now I have several thousand in the bank!

When I got microcredit I bought sheep and seeds. The sheep had lambs, which I sold, and finally I had enough to buy a cow. Now I sell lambs and grow vegetables. This has changed my life, says Luedaje.











## MY AFRICAN FARM

Asfawo Gizawo is physically disabled and had no income or agricultural training before he was given the chance to join the CAV training program. Asfawo borrows land in exchange for half of the harvest, and now grows pepper, tomatoes and maize on several patches of land.

– I was unlucky with the tomatoes this year and didn't earn as much as I hoped, and I would appreciate better irrigation. But I used to earn nothing, so this is a great help. I'll soon be finished with tenth grade and hope I can start high school this fall, but then I need to grow more vegetables, and to manage that I need more land. So I still need help from the project, but I'll manage!



# WHERE THE PEPPER GROWS



Often small improvements make a big difference. Access to water, new plant species and knowledge about smarter cultivation techniques increases food security, gives a more varied diet and opportunities for extra income.

**Befkadu Tolosa (60) has exchanged maize with cabbage, vegetables, coffee and pepper, and now grows plants for sale to other farmers in the district.**







**Befkadu's and the other farmers' fields lie in steep terrain. Multipurpose grass keeps the soil and nutrients safely in place.**

Working with EWNRA, the CAV committee had a water reservoir built, which supplies enough pressure to spread the water to the fields below. Here, about 30 families share this simple, but efficient irrigation system. The farmer Befkadu (60) has seized the opportunity and gone all out. He harvests cardamom plants in the woods and cultivates pepper plant seedlings which he sells to other farmers. On his fields, he alternates cabbage, maize, pepper and fruits of various kinds, depending on the time of year and season.

– I have daughters who get an education, and in our family we have both food and income from this land, so I'm very happy now, says Befkadu.

– Before I only grew maize and teff, but all of us who did that here on the mountain side were plagued by drought and erosion. Now it's easy to see that things are much better.

Befkadu also uses the multipurpose grass that holds the soil in place in the steep terrain and also provides nourishment for cattle and sheep.



**Befkadu cultivates cardamom in the woods bordering his field. The price is good and there is great demand for this tasty spice.**



**A simple but effective irrigation system supplies the fields of 30 families with water. It allows them to grow a large selection of vegetables, spices and fruit, where people previously struggled to cultivate maize and teff.**







A person wearing a green and black striped shirt is partially visible on the left side of the frame. The background consists of a field of tall, dry grass and numerous thin, vertical sticks or branches. A large, solid red rectangular box is positioned in the center-right of the image, containing white text. The overall scene is outdoors, likely in a rural or natural setting.

## DROPS OF IMPROVEMENT

When the representatives in Yobi Dola conducted the vulnerability analysis, the need for clean drinking water came out high on the list of priorities.

Zinaye Mari (42) is a member of the board of the water committee (the Wash Committee). She shows us the pool that used to supply the more than 200 people who live here with water. The open water source is infected by excrement from animals and people and exposed to influx of earth and other pollution. Many who got their drinking water here had diarrhea and bad general health.

The Development Fund financed a pump and materials, EWNRA organized the work and provided training for those who would maintain the water pump, while the users communities pitched in voluntarily to build the facility.

Twice a day the padlock on the pump is unlocked and the villagers can take as much water as they need. The water pumps have been transferred to the authorities, and the users committee have been certified to do maintenance. To finance this work, all members pay a small sum twice a month.









**Zinaye Mari (42) board member of the Wash Committee and Aster Iwunetu (15)**



**The three CAV villages Yobi Dola, Haro and Goljo lie in the Hurumu District.**



**In this pool, people in the surrounding villages fetched drinking water, washed clothes and watered their animals.**













## LESSONS LEARNED

The key to success for local climate adaptation is building strong local institutions, this is the most important lesson we have learned after almost three years of working with CAV in Ethiopia. A vital part of the CAV- model is to become sustainable, and the only way to ensure sustainability is through building local skills and capacity. That is because those living, and working, in the areas need special skills to be able to implement measures for local adaptation.

Participatory awareness is key for local adaptation. We have learned as a lesson that CAV is a bottom up approach that ensures full community participation in planning, project implementation and decision-making. It builds on community/beneficiary agreements and addresses environmental/natural resources, climate change and human elements of adaptation in an integrated manner. It has effect on the mindset of people and creates climate change conscious communities, that plans and implements in a future focused manner to cope with the inevitable changes in climate.

Voluntary work and participation: Good participatory processes are crucial for the implementation of climate adaptation measures locally. Participatory processes build ownership among local people and show them the value of conserving and managing common resources. A large part of the adaptation plan in Gjolo has been implemented by volunteers. Voluntary work is important for the projects, and people volunteer because they see that it benefits all.

Available funds: Conducting a vulnerability assessment and designing adaptation plans is not enough. Funds should be available in order to implement planned measures. Management of financial resources is an important skill for local adaptation, it is crucial that there is local capacity to administer the funds. It requires, among other things, knowledge of microcredit systems. Microcredit is an important tool in CAV, and has worked well in Central America, where strong local organizations, dealing with credits were already in place long before CAV started. Experience from pilot projects elsewhere have shown that when local groups lack the necessary knowledge, and capacity to manage money, the funds are used for direct investments rather than loans. Thus the funds are only used once, and it becomes very difficult to achieve sustainability. Therefore a local organization, that has experience in managing credit funds, must be in place before adaptation funds are allocated locally.

Support from the local authorities is vital: The participation of local authorities is crucial for making local climate adaptation sustainable in the long run. Local authorities must be included in the CAV process from its beginning. In that way, they gain knowledge and become more aware about environmental issues affecting their communities. Teaming up with local governments is also important for securing further funding for local climate initiatives.







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**Climate Adapted Villages (CAV)** is the Development Fund's method for local climate change adaptation. The method focuses on building skills and capacity locally, and assuring that adaptation occurs according to terms set by local villages, and that the implementation is sensitive to the needs of the most vulnerable people of the community. This report is a review of the method, and shows how CAV has been implemented in Ethiopia.

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