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# AFAR INTEGRATED DRY LAND MANAGEMENT PROJECT (00077187)



2012 Annual Report

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# 1. Afar Integrated Dry Land Management Project progress report (00077187)

# **1:1.** Background of the regional context

The Afar Region/ANRS is part of the East Africa Great Rift Valley and is characterized by a climate with high temperatures and low rainfall and by sparse vegetation with patches of *Acacia* woodlands, bush and grassland. A major portion of ANRS is now degraded scrub and range land, with only about 2.5% of the land under cultivation. ANRS is one of the drought-prone areas of Ethiopia that experiences repeated rainfall failure. This causes a situation where the pastoralists become dependent on food aid for survival. Disruptions in any rainy season will impact on the availability of pasture and water worsening the overrall food security situation of the pastoral and agro-pastoral communities. Drought has been a feature of the Afar region since long time and was seen as recurring within intervals of an average of 10 years. However, during the past decades drought prevails in rapid intervals, in some areas almost every year.

In view of addressing the above mentioned recurring challenges and as part of Ethiopia's contribution to the implementation of the United Nations Convention to Combat Desertification (UNCCD), the Mille project was initiated.

The majority of Afar's people live a pastoral life-style, within a culture that has evolved to be suitable as a way of survival in arid and sparsely vegetated land. Changes of conditions in weather patterns, in the economy, in access to livestock markets and in the disruption of peace due to resource based conflicts with neighbours were common phenomena. Recurrent drought have worsened overall livelihood conditions and weakened Afar peoples' drought resilience, season by season. Socioeconomic services and infrastructures are underdeveloped in ANRS and the region has a high level of illiteracy, widespread human and livestock diseases Moreover, exclusion from traditional dry season grazing grounds due to the establishment of commercial farms, exclusion from cattle markets due to international conflicts, and water and grazing resource disputes with neighbouring clans and with other ethnic groups have added to the burden of everyday life in Afar. There is a further loss of available pasture land, in some places a severe loss, due to the rapid invasion of *Prosopis* bush and some acacia species locally called Gerento and parthenium hystriphorus. The above issues coupled with pressure exerted by climate change have been worsening the life and livelihoods of pastoral people. This situation has been clearly identified on the Regional and Worda/District level Climate Change Adaptation Programme.

These combined factors have resulted in an overall situation of a decline in livestock production and productivity and an increasing vulnerability of ANRS pastoralist communities, with particular negative implications for women and children.

# 1:2. Introduction

The Afar Integrated Dryland Management Project (AIDMP) is a scale-up of a pilot project implemented in Mile *wereda*, Afar National Regional State (ANRS), during 2006 – 2008 as the '**Mile Integrated Dryland Management Project'** ("known as Mile Project"). The current project is being implemented in Dewe, Mile, Chifra, Ewa, and Awra *Weredas* by Afar Environment Protection and Rural Land use and Administration Agency as Regional implementing partner. These two projects (the former and the current) are projects implemented as part of Ethiopia's contribution to the implementation of the United Nations Convention to Combat Desertification (UNCCD). The Royal Government of Norway (RNE) has provided funds to UNDP's Drylands Development Centre (DDC) for implementation of dryland management projects in Ethiopia (AIDMP) as components of the global Integrated Drylands Development Programme (IDDP).

# 2. Objective and expected outputs of the project

# 2:1. Objective

To improve the livelihood and coping mechanisms of pastoral communities of 5 weredas by enhancing their capacity to sustainably manage and use natural resources through the implementation of adaptation activities that are identified in the 5 Woredas.

The aim of AIDMP is to strengthen the adaptive capacity of Afar people in building climate resilient sustainable development through the implementation of the Regional and Woreda level Climate Change Adaptation Programme, which will be the basis for implementing local level integrated dryland management programme initiatives.

#### 2:2. Expected outputs of AIDLMP

Output 1: Institutional Support for integrated dry land management

Output 2: Strengthen capacity for Sustainable Dryland Management

Output 3: Livelihood diversification activities support

Output 4: SLM Communication and Information dissemination

# 3. Major Activities Implemented and Results Achieved

#### 3:1. Output 1:- Institutional support for integrated Dry land management project

The AIDMP Implementation is carried out by EPA's regional arm in Afar, the Afar Environmental Protection and Land Administration and Use Agency (EPLAUA) in collaboration with the technical and administrative support from federal EPA and UNDP. Considering that EPLUA in Afar is newly established and has limited capacity for timely implementation, strengthening its capacity in terms of staff and required equipment was found essential. To this effect,

# 3:1:1. Project team Recruitment and office establishment

Office for AIDLMP coordination unit established at regional level within EPLUA and 5 wereda PCU offices within Pastoral Agriculture Development offices respectively and the offices were equipped with different office furniture, IT equipment and 3 project staffs at regional level (Project assistance coordinator project officer and finance officer) and 5 field officers for all project weredas recruited and discharged their responsibilities.

# 3:1:2. Transportation

To speed up the project activity implementation and facilitate day to day follow up, 5 motor cycles were procured and distributed to all project weredas. Besides this 1 double cabin 4 wheel drive vehicle is procured and clearing process is underway.



#### Figure 1: Supplying transport service

#### 3:1:3. Regional and wereda project management Arrangement

To strengthen the project implementation effectiveness, project management and project technical committees were established both at regional and wereda levels drawn from concerned regional bureaus and wereda sector offices such as Office of Women, Youth and Children Affairs, Office of Cooperatives Promotion, Bureau of Education, Bureau of Health, Bureau of water Resource Mine, Bureau of Pastoral Agriculture Development, Environmental protection Land Use and Administration Agency and office of the President.

The management committee is represented by heads of Bureaus and is chaired by the President Office. The secretary of the management committee is EPLUA at regional level and Pastoral Agriculture Development office at wereda level respectively.

Similarly the project technical committee is drawn from the above mentioned line bureaus and offices. It is a group of expertise skilled with different disciplines related to project activities and is composed of Gender expert, Forester, watershed management expert, Range land Development expert, Animal health experts, Environmental health expert, water engineer, cooperatives expert. The committee is chaired by PARDO head at wereda level and EPLUA at regional level. At wereda level, among the 50

technical committee members 11 of them are females. Both committees have their own terms of references that guide project management for better and effective implementation..

# 3:1:4. Training on monitoring and reporting

Monitoring, reporting and project management Training was organized in collaboration with regional BOFED for regional and wereda project staffs, wereda sectoral office heads, wereda administrators, and wereda project accountants to create awareness about the NEX guideline of UN agencies. This was done to enable IPs to properly manage the project resource and activities and also to promote quality reporting in time.

# 3:1:5. Community and wereda level consultation

To strengthen IDLM platform with local support group, repeated community representative meeting has been organized at 5 project weredas in all 15 selected project kebeles to create awareness among the community members about the project objectives and activities to be implemented and expected contribution of the community during the actual implementation of the project. Above all, development committee is established composed of kebele development agents, representatives of women, elders, youths and kebele administration. The kebele development committee is chaired by kebele chairman. During these community consultation meetings, 500 community representatives participated of whom 100 of them were women. In all project weredas, wereda plan has been prepared by wereda technical committee and agreed with kebele representatives for smooth and efficient implementation.

#### 3:1:6. Integrated vector management training for community health workers

One of the major impacts of climate change on human health is creation of favorable condition for reproduction of vectors which harbor different disease causing micro organisms threatening the health of human beings. To minimize the impact, community health workers who are working in selected project kebeles were trained on control vectors and vector born diseases.

For this reason, training entitled with Integrated Vector management in relation to climate change have been organized twice and given to 60 community health workers selected from project kebeles (15 females and 45 males) in collaboration with Bureau of health. The trainees are believed to serve about 20, 000 residents in their locality.

# 3:1:7. School environmental club establishment

The environment of the project kebeles is very fragile, degraded, and the community in the area with low level of awareness pertaining to relations of the environment with development. To enhance their awareness and to encourage their contribution to environmental conservation, volunteers groups who are interested to protect the environment school clubs were organized. For this purpose regional environmental club establishment manual containing organizational structure, roles and responsibilities of club members, types of activities to be carried out by the clubs was prepared and distributed to all project weredas. Consequently, 17 school environmental clubs consisting 550 members (150 female and 400 male students) were established in 17 schools of project weredas. Besides, hand tools were procured and distributed to these clubs to support their natural resource conservation activities.



#### Figure 2: materials and tools provision

#### 3:2. Output 2: Strengthen capacity for Sustainable Dry land Management

#### 3:2:1. Assessing and documentation of traditional natural resource conservation practices

Due to global climate change and its manifestation in rain failure, erratic distribution of the rainfall and untimely rain accompanied by rangelands degradation, drought and related hazards occurs in the region almost every year. This situation forces Afar community to xploit the existing scarce natural resource beyond its capacity by ignoring their useful and important traditional natural resource conservation practices.

To rehabilitate the degraded natural resource in the region, revitalizing the weakened traditional natural resource conservation practices of the community assessing and documenting such traditional practices is found imperative. For revitalization such knowledge and to make use of Traditional Conservation Practices for rehabilitation of degraded natural resources, a regional Task force was established consisting of a group of senior experts drawn from Semera University, Afar Pastoral and Agro Pastoral Research institute and Environmental protection Land Use and Administration Agency and Afar Traditional Natural Resource Conservation Practices were assessed from different secondary information and documented.

# 3:2:2. Community Mobilization Training

Climate change impose diverse impacts in the region specially in the areas of range land degradation, drinking water shortage, spread of human and livestock diseases, deforestation, flooding, conflict etc... To address all the above mentioned problems identified in the project weredas, and enhance active participation of the community for effective implementation of project activities at grass root level. For this purpose, development agents who are assigned in the project site of each project weredas need to acquire skill how to mobilize the community for better par, training was provided to Development agents selected from the project woredaon how to mobilize the communities (45 DAs 8 women and 37 male)

#### 3:2:3. Experience sharing visit

Community representatives, DAs, and selected experts at all level were sent for Experience sharing to help them gain best practices from other neighboring areas. This experience sharing field visit was organized in Amhara region of Werebabo wereda where best practices in soil and water conservation, in range land management, in livelihood diversification and in house hold asset building activities for about 65 (7 female and 53 male) community representatives, Development Agents and wereda and regional experts to draw lesson and apply appropriate technologies gained from the tour according to the region context.







#### 3:2:4. Alternative energy sources and Alternative housing technology

Some of the reasons for sever deforestation in the Afar region is use of forest products as energy source, for income generation and for construction purposes. On the other hand, the region had no energy supply for rural health centers to use refrigerators to preserve medicines from damage.

The project have selected 5 health institutions that has been serving relatively more people and installed solar panel to provide refrigeration and lighting services.

The AIDLMP has promoted alternative energy source specifically solar panels. Health institutes, which have suffered a lot due to absence of electricity, are now enjoying the multiple advantages of solar electrification. They are able to protect vaccines and drugs and accomplishing vaccinations at required times, and as well are able to enhance medical treatment during night time providing sufficient electricity for the institutions to give 24 hours service so that they can help emergency patients and women who needs support for delivery at night times without any problem. Due to the installation of the solar panels about 10,000 peoples of which 4000 women are estimated to be benefited.



Training on operation and maintenance of solar panels was also organized for 30 participants selected from health institutions and relevant Bureaus in collaboration with Semera University to help the

Solar electrification in rural health center

beneficiaries operate the system properly and maintain them to ensure durable service.

Since most of the community members depend on the existing resource for fuel and construction material, the natural resource of the region is deteriorated. Hence, demonstration of alternative construction material like mud bricks to minimize the destruction of forest for construction purposes is given due attention by the project. The demonstration helped community members to acquire skill on mud bricks production and how to construct houses using mud bricks. The specific advantages include drastically reduced deforestation, economically low cost – reducing material and construction cost.



3:2:5. Construction of soil and water conservation structures

To rehabilitate the degraded areas of the project weredas, different soil and water conservation practices has been promoted with the aim to increase the vegetation cover has been done with active participation of the local community and other concerned stakeholders. To facilitate the nursery management activities for controlling soil erosion, conserving soil moisture and promoting vegetation cover of degraded areas, different Hand tools were procured and distributed for to the 5 project weredas.





Stone and soil bunds

With the help of these hand tools and active participation of the local community, 25 kms of stone and soil bunds, trenches, faniagu, faniachini, and about 1000 different water conservation structures such as eye borrowed micro basin, soil and stone check dams were constructed in 13 kebeles of the 5 project weredas. In all these activities, women were actively participated.





women participation on SWC

water conservation structures

# 3:2:6. Gullies and riverbank stabilization

For gully treatment and riverbank stabilization, 1000 Gabion boxes ( 2m<sup>3</sup> and 3m<sup>3</sup> in size procured and distributed to project weredas. Stones for gabion works collected by community participation in all project weredas and about 2 km actual river bank stabilization works are being done in kebeles where there is gully formation and to keep river banks stable.



In addition to this gullies treated, the project kebeles were treated using different methods like stone and soil check dams. 2500 community members o0f whom 1000 women directly participated and benefited from this intervention.

#### 3:2:7. Natural resource conservation and management training

For better and effective implementation of natural resource conservation practices, development agents who are assigned in project kebeles and wereda experts has been trained on the causes of degradation, about different technologies and techniques of conservation and management practices. The training manual with three main sub titles namely nursery site establishment and management, watershed management and rangeland conservation and development produced by higher experts of Pastoral agriculture Development Bureau and distributed for trainees to help them refer during their actual activity implementation.

# 3:2:8. Area closure and invasive weed /bush management

Range land degradation and loss of available pasture land, in some places a severe loss, due to the rapid invasion of *Prosopis* bush and some acacia species locally called Gerento and parthenium hystriphorus. To improve the availability of pasture and allow regeneration of grass species which were suppressed by

the invasion of exotic unwanted bush, 75 hectares of range lands in all 5 project weredas cleared from



prosopis.

Invasive weed management on range land

and parthenium invasion and enclosed to protect it from human and livestock interference. Besides, different fodder grass seeds procured and over sowed to improve the feed provision potential of the range land with participation of 750 community members. Community awareness created and consensus reached among communities and bylaws where all community members are abide with is developed and agreed by all members.

# 3:2:9. Establishment of fodder bank

To minimize the problem of feed shortage at the times of dry season and to avail feed for selected livestock such as milking cows, goats and home left weakened livestock 12.5 ha of fodder banks established and different fodder species are planted for future reserve. On these fodder banks 300 poor community members having no opportunity for long distance movement with their livestock have benefited.

The main objectives were multiplication of different forages for distribution to the community members for use during forage deficit times of the year. Five fodder banks are established near perennial rivers, by which *Alfalfa*, *Panicum* and *Rhodes* grass have been grown watered with irrigation.



#### 3:2:10. Provision of water supply

To improve the availability of drinking water, 20 hand pumps procured and distributed for project weredas. The wereda project coordination units in collaboration with the wereda water resource development offices are selecting sites for hand pump installation. The actual hand pump installation and rehabilitation of the existing malfunctioned hand pumps are underway by wereda PCU in collaboration with wereda water resource offices to minimize drinking water shortage in project kebeles.

To improve the health situation of livestock in the project weredas, community animal health workers who are working in the project weredas were given refresher training and equipped with different animal drugs and medical equipments so as to help the community around their vicinity.

Besides this, the type of diseases most prevailing in the woreda was assessed with the help of regional livestock department in the procurement of drugs that help to cure those diseases. The drugs are purchased by UNDP and supplied to the region for distribution.

# 3:3. Output 3: Livelihood diversification activities selected and implemented

#### 3:3:1. Construction and maintenance of irrigation structures

The pastoral community has to diversify their livelihood to complement their usual way of



**Figure 3 Detailed study for irrigation expansion** 

Pastoral life. With this objective, the AIDLMP in collaboration with Bureau of water resource development have carried out detailed study on permanent rivers in Awra weredas for irrigation structure expansion works having a capacity of irrigating additional 60 hectares of land and for

maintenance of existing irrigation structures in chifra wereda to help the pastoral community to produce crops on 30 hectares of land.

Based on the detailed study made by water resource bureau, the AIDLMP have signed a 2.2 million birr agreement with regional water bureau to undertake the expansion and maintenance works of irrigation structures and the EPLUA have transferred 528 thousand birr to regional water bureau account while the remaining amount is effected as direct transfer from UNDP. This expansion and maintenance work will help 150 community members to be engaged in irrigation crop production to complement livestock rearing activity.

#### 3:3:2. Irrigation association establishment and training

5 irrigation associations with member of 175 pastoralist established in all project weredas and training was organized to 40 management and controlling committees of the associations focusing on the importance of cooperative associations, marketing methods and benefit sharing in collaboration with regional cooperative promotion and development office.

#### 3:3:3. skill training need assessment, strategy development and training

In collaboration with Regional Small and Micro Enterprise Development Agency, assessment conducted to identify marketable skills in all project weredas. During the assessment, demand of skill trainings as per the interest of the community were identified to be metal works, masonry, carpentry, plumbing and electric installation. 90 trainees 18/wereda selected for the training and EPLUA on behalf of the project agreed with Lucy ETVET collage all the 90 candidates were trained according to their interest. The training was given for 25 consecutive days and it was both theoretical and practical training, finally the trainees were given certificate.

#### 3:3:4. Business skill training

Business skill training organized and given for 30 unemployed community members to help them create their own business that have value addition like milk processing, petty trade and the like

#### 3:3.5. Establishment of saving and credit associations

For the pastoral community to be engaged in other livelihood options there have to be institutions that can provide loan service and to help the community as a saving center. But in Afar region, there is no an entity providing these services and even the community awareness about the importance of this institution is low. Therefore community awareness training about micro finance institution was organized by wereda project coordination unit in collaboration with wereda cooperative promotion offices in all 5 project weredas for 275 community members and 5 saving and credit associations having 275 members (75 women and 200 male) established to give the intended services for the members. These associations got registered and received certificate from regional cooperative office and the project is going to provide seed money for the association to promote credit service.

# 3:4. Output 4: Integrated dry land management (IDLM), communication and information dissemination

# 3:4:1. Provision of information board

As the impact of climate change is multi dimensional, the Afar Integrated Dry Land management Project is mainly focusing to address the problems exerted by climate change and is doing different integrated activities by involving concerned stakeholders and with full and active participation of the community. To publicize the major activities of the project and to increase community awareness on IDLM, EPLUA have produced different print materials such as 14,000 brochure, 5000 posters, 2500 environmental club establishment guidelines, 200 hat and 200 t-shirts.

Conducted assessment to identify challenges and strengthen the existing early warning system for timely warning and to have full preparedness prior to occurrence of disaster to minimize the impact.

Based on the assessment result conducted on existing early warning system, training to strengthen early warning system has been organized in collaboration with regional disaster prevention and food security programs coordination office for 50 wereda early warning committee members. The training was focusing mainly on how to improve information communication linkage among line bureaus and offices and integrating the traditional early warning with modern system.

# 4. Problem encounter during implementation of project

# Change in the implementing body

• Formerly the project was under regional PARDB while environmental protection was organized as a team but after structural adjustment made in the region, the environmental protection established as Agency who then took over project implementation responsibility from Pastoral Bureau which also caused long bureaucratic process to adjust banking issue and project management.. This caused significant delays causes

# Climate change adaptation plan preparation took long time

- The preparation has taken about a year delaying the commencement of project implementation
- Regional EPLUA is a newly established agency and has no vehicle to follow up day to day activities of the project. To solve the problem of transportation, the project provided motor bikes to project weredas for day to day follow up of project activities. In addition the project now bought a Ford double Cab car.
- Absence of wholesalers and contractors in the region affected speedy material procurement for project activities and contractual services.