Welcome to the Amhara National Regional State

Rain fed Agriculture Practice and Challenges:

Lessons and Challenges on Disaster Risk Management and Early Warning Information Dissemination

(the case of the 2015 drought in Amhara Region)

Presented to

NSF-PIRE KICKOFF Conference

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Bahir Dar

Introduction

- Drought has been repeatedly affecting rural peoples in Ethiopia
- In 2015 main rainy season (locally called *meher*), most of **the eastern flank** of the Amhara region was affected by drought due to the global phenomenon the so called El Niño
- Most, if not all, of the region rural areas depend on *meher* agricultural production and the production system entirely relies **on *meher* rain**
- The 2015 *meher* season rain had two form in the region
- In the western part of the region, it was normal and favorable for agricultural production

Introduction…

- While in Eastern part of the region, the rain was characterized **by late onset and early cessation**
- To be specific, there were few kebeles (in Tselemet and Sihal woredas) that did not receive a drop of rain in the season
- In general, it is told to be the worst in history of Ethiopian drought in 50 years
- About **802** rural kebeles in **83 woredas in 8** zones faced moisture stress and its consequence in various forms

Introduction…

- A coordinated actions at all level (From federal to kebele level) were made to respond to the drought and the adverse effects following the drought
- Government organizations, NGOs, Donors, private organizations, the community in the region and HHs individually had great role in averting the adverse effect of the drought in the region
- Despite its severity, the intrinsic link between drought and famine which had been in previous episodes of **drought seemed to be broken**

Introduction…

- Unlike the drought in three decades before, now in the face of this severe drought **there was no famine and death of people either**
- What were the challenges in the implementation of full processes of disaster risk management (DRM) cycle namely prevention, mitigation, preparedness, response, recovery and rehabilitation
- What lessons we draw from so?

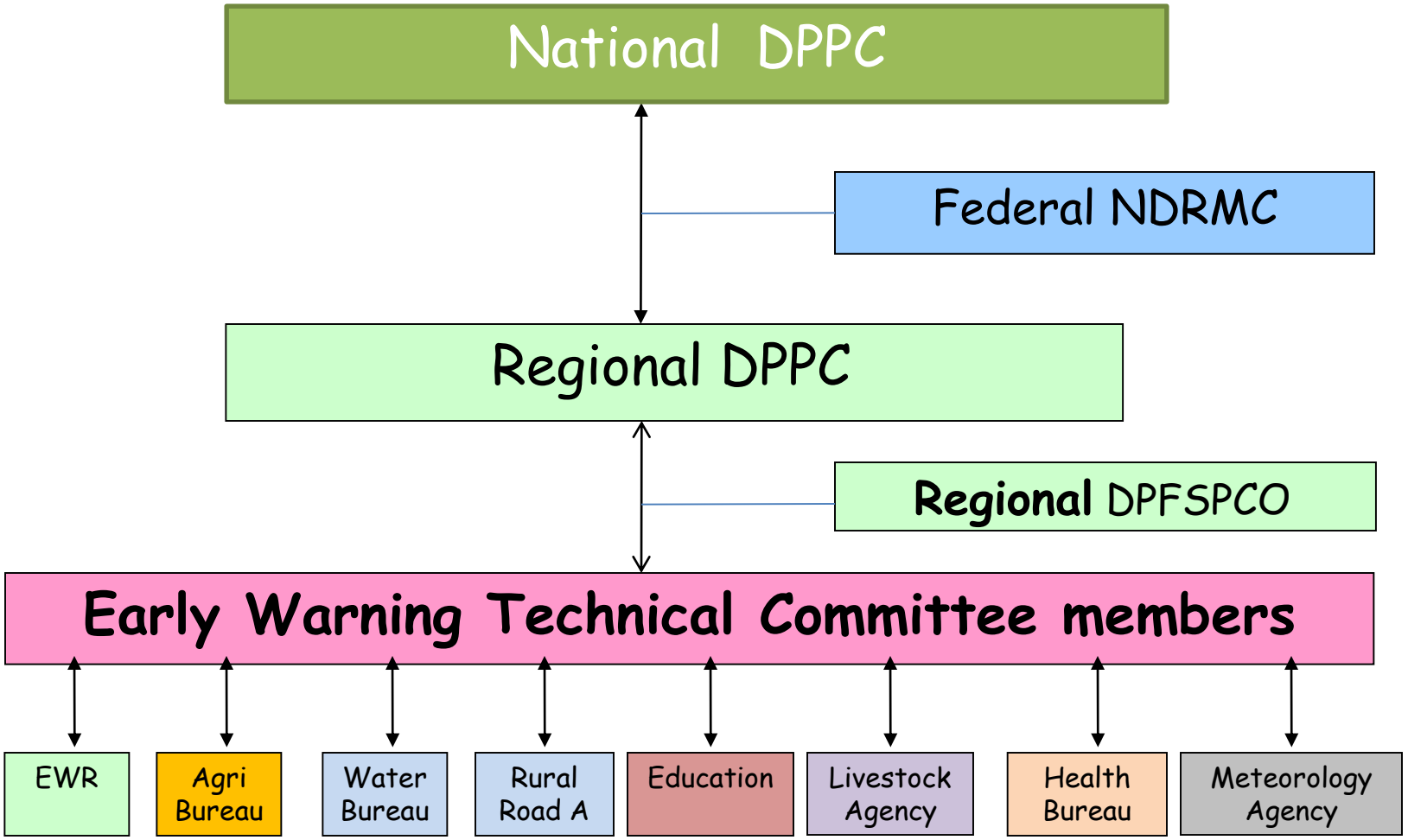
Objective of this presentation

- To identify challenges and review lessons from the 2015 drought and its management mechanisms for future development and DRM efforts

Strengthened institutions

- Different committees and task forces were strengthened & activated to take actions
- Strong political commitment and leadership to take mitigation measures and respond to the emergency
- The regional Disaster Prevention and Preparedness Committee (DPPC) provided strategic directions on all DRM activities in a weekly bases and resolution of problems as they occur
- Technical activities as early warning data analysis and situation monitoring were conducted by early warning technical committee
- Field level monitoring & supervision of events & interventions were undertaken even by the regional higher officials

DRM Structure and Coordination



Early Warning System (EWS)

- Early warning is **a process of monitoring various indicators affecting livelihoods** with a view to warning of the threat of disaster ahead of time

- The major objective of data collection and dissemination is to;
  - provide current information and allow the community to take possible actions
  - ✓to reduce their risk
  - ✓and prepare for effective response

Early Warning Data collection & Disseminating

- Early warning data were collected from each woreda in **weekly & monthly bases**
- Regular monitoring is a major component of early warning activities that involves
  - the provision of weekly information and
  - the completion of monthly questionnaire based on different early warning indicators

EW data…

- Major early warning data collection is based on EW indicators. These include;
  - Rainfall data
  - Crop data (area cultivated & planted)
  - Livestock feed and water
  - Health (livestock and human)
  - Market
  - Nutrition and food security status
- The collected data organized, analyzed and sent to federal for further analysis and update of food security situation at national level
- 13 woredas started to use woreda net

Early warning Information were collected

- **Prior to the incident**: Information about impending danger
- **during the incidence:** as the impact is taking place, e.g. Rainfall, water & pasture availability, levels of rivers and dams
- **After the incident**: information after the incident
  - to assess the damage and
  - the needs for response

Monitoring of the situation

- Follow up of the drought and its related impact was undertaken by categorizing woredas **in the magnitude of drought**
- Hotspot area classification as low, medium and high were revised and updated in quarterly basis
- Prioritization and placement of responses thus takes these hotspot classification of areas

Products of Early Warning System

- Monthly /Weekly report
- Seasonal Report (*Belg & Meher*)
- Annual Report
- Nutritional Report
- Disaster Area Assessment Report

Early Warning data…

- Monthly Bulletin were prepared & disseminated to distribute to farmers through zones and woredas

- Early Warning information dissemination mechanisms also include mass media, phones, fax, internet…

Contingency Plan Preparation

- Sectoral hazard mitigation & response plan were prepared and different activities were implemented as per the plan
- Community consultations at all levels were done

Budget allocated for mitigation and response activities

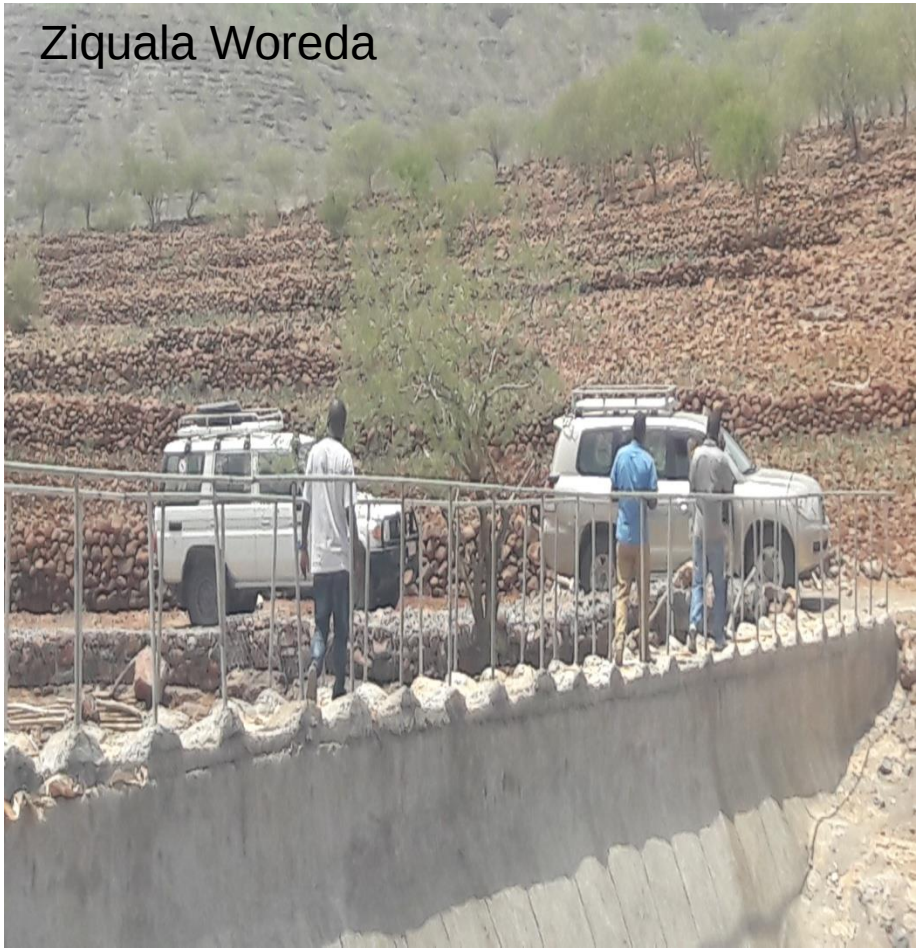
- More than 1 Billion ETB were allocated by the federal and regional government from different sources for different activities;
  - Water harvesting
  - Livestock feed, medicine, vaccine
  - Emergency seed support
  - Road construction
  - Human health
  - Emergency food support…
- Also different NGOs and UN Agencies (UNICEF…) support the above sectoral response activities

Mitigation actions taken in drought affected areas

water harvesting to retain moisture as it rains

- The region deployed **46** machineries in 83 kebeles in 30 woredas
- **170 communal ponds** with a total capacity of **704,869** m3 were constructed and out of which 114 (67%) hold water for livestock
- More than **4,000** Geo-membranes were distributed to 32 woredas
- **4,152 small ponds** were constructed
- **55 Gravity dams** were constructed in different woredas

Masonry dams



Livestock Feed & Water Availability

- The poor rain has adversely affected pasture regeneration & water availability
- In 8 zones Currently **102,830 tone** feed were collected & distributed to farmers in different woredas
- **881,428 cattle** were destocked in different woredas
- Also **509,216 animals** were trucked to different woredas in search of feed & water
- These minimized the risks associated with feed shortage

Livestock Health

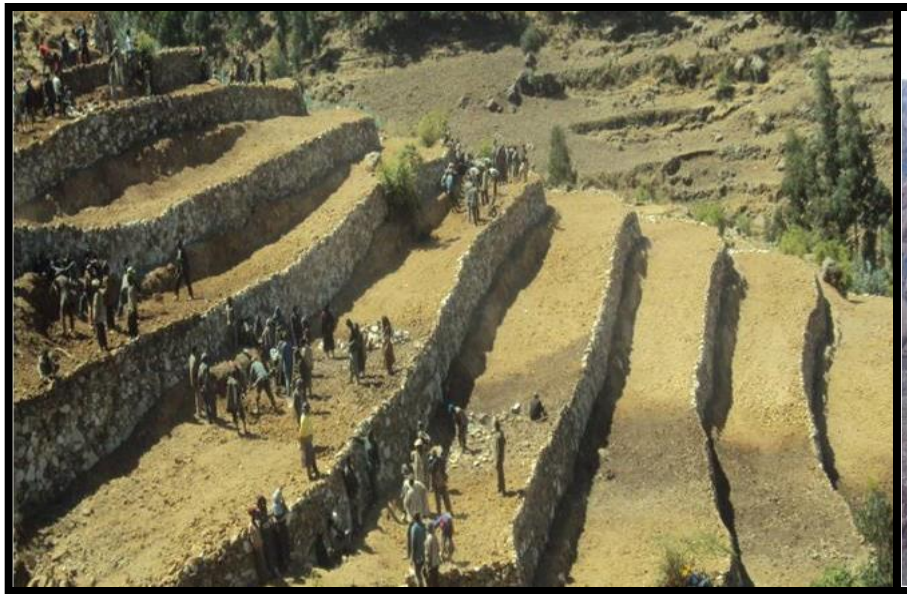
- To prevent outbreak of animal diseases associated with drought
  - Livestock medicine & different vaccines were purchased & distributed to woredas
  - **8,541,759** animals were vaccinated &
  - **6,600,412** animals have got different treatments

Food Security Programs (PSNP)

- The PSNP transfer for PSNP clients contributed to smoothen consumption and protect HH assets
- NRM efforts of the PSNP clients and the whole community
- Different social infrastructures and services
- Water development efforts made through FSPs (PSNP) had also contribution in minimizing adverse effect of drought, but a lot remain to do

Few works of food security program (PSNP)

North Shoa



East Gojjam, Enebsie woreda

Northshoa, Menz Mama woreda

HHs in Menz Mama use community ponds for fish & vegetable production

Emergency Responses

- In order to enable victims easily access to emergency supports (food, water,…), **road construction** and **Rub hall installations** were carried out in remote & inaccessible areas

Road construction and maintenance

- In 46 woredas **997 km** road constructed using machineries
  - Out of which **100 km** was by the community

Rub hall installation

- 10 additional new Rub halls /stores/ were constructed in different woredas
- Hence, Supply and distribution of emergency supports to the needy **undertaken timely in possible near sites**

Road construction to reach affected people

Food Aid

- Federal & Regional Governments supplied and distributed emergency food for affected people in the region

Federal Government

- **2,364,572 beneficiaries** were supported with emergency food (83 woredas)
- More than **420 qt emergency food per month** were distributed for needy beneficiaries
- Corn and Soy bean Blend **(CSB) & oil** were distributed to **488,567 mothers & < 5 children (in 83 woredas)**

Regional Government

- The regional Government allocated 75 million ETB to purchase emergency food
- **62,000 qt** food purchased from Cooperatives Unions
- **37,738 quintals** of food distributed to **222,801 b**eneficiaries in 36 woredas

WATER

- Water shortage were reported in 64 woredas & **493 kebeles**
- Emergency water response activities were underway in different woredas
- Water containers (Rottos & Jericans) were distributed to different woredas
- **158 shallow & deep wells** were constructed using 30 Rig machineries deployed to woredas
- **2,111 pack animals** were bought for water trucking in woredas where road is inaccessible

Health

- water born disease /diarrhea/, scabies, malaria… were reported
- Medicines like mosquito net, Sulfur, soap… were distributed to woredas,

Nutrition

- Screening were conducted on monthly bases for early detection and treatment
- A total of **41,716 qt CSB & oil** were distributed to 83 woredas for **488,567 mothers & < 5 children**
- **A**dditional foods (plump net, milk) & other routine medicines were distributed

Education

Due to the shortage of rain more than 1 million students were exposed

- student absenteeism & dropouts (2,627) were reported
- Shortage of materials (uniform, exercise book, pen…) were reported
- These all affected the learning teaching process

- Different teaching materials (exercise book, pen & pencils) were distributed to needy students
- Water rationing for schools with vehicles and pack animals
- Also school feeding programs in 65 woredas **in 1,265 schools** for **1,085,080 students were practiced**

Lessons Learnt

- Strong political commitment and leadership at all level and strong coordination collaboration among stakeholders for effective response
- The role of private sectors such as cooperatives and academic institutions had played to respond to the drought in different forms
- The time of forecasting drought and provide EW information to households and community to early aware and prepare for was short
- Capacity building for efficient & effective dissemination of EW information (woreda net, experience sharing…)

Lessons …

- **Research and academic institutions should work in areas of DRM mechanisms & long term forecasting of disaster events**
- Slow action and learning from past and long experiences to prevent and or mitigate the persistent drought in Ethiopia
  - The drought showed to continue the efforts on NRM
  - Development & use of alternative sources of water for agri production (Ex: HHs with irrigated land were resilient)
  - Agri seed varieties of drought resistant or adapted to moisture stress
  - Exploration of diverse IGA to build vulnerability of HHs

Lessons…

- **The overall growth and development of the country and of the region had contribution for the timely and effective emergency responses**
- Disaster risk management resource at regional and community level is crucial
- Disaster risk assessment and mainstream of DRR action in the development plan of each sector
- Knowledge management: Documentation of the action of HHs before and after occurrence event and the effects of action on lives and livelihoods of the people


Thank you

Historic sites and Natural Heritages of Amhara Region

Rock-Hewn Churches of Lalibela
(built in 12th century)

EMPEROR FASILEDAS PALACE
(built in 16th century, Gondar)

WALIA IBEX in Semen mountain (endemic to Ethiopia)

BLUE NILE FALL- Nile is the longest river in the world

Approximately 6,695 kms long

The Renaissance Hydro power Dam on Blue Nile:

6000 MW electric power