

AGROMETEOROLOGICAL ASSESSMENT OF
BEGA 2005/06
BY
AGROMETEOROLOGICAL TEAM

JANUARY 26, 2006



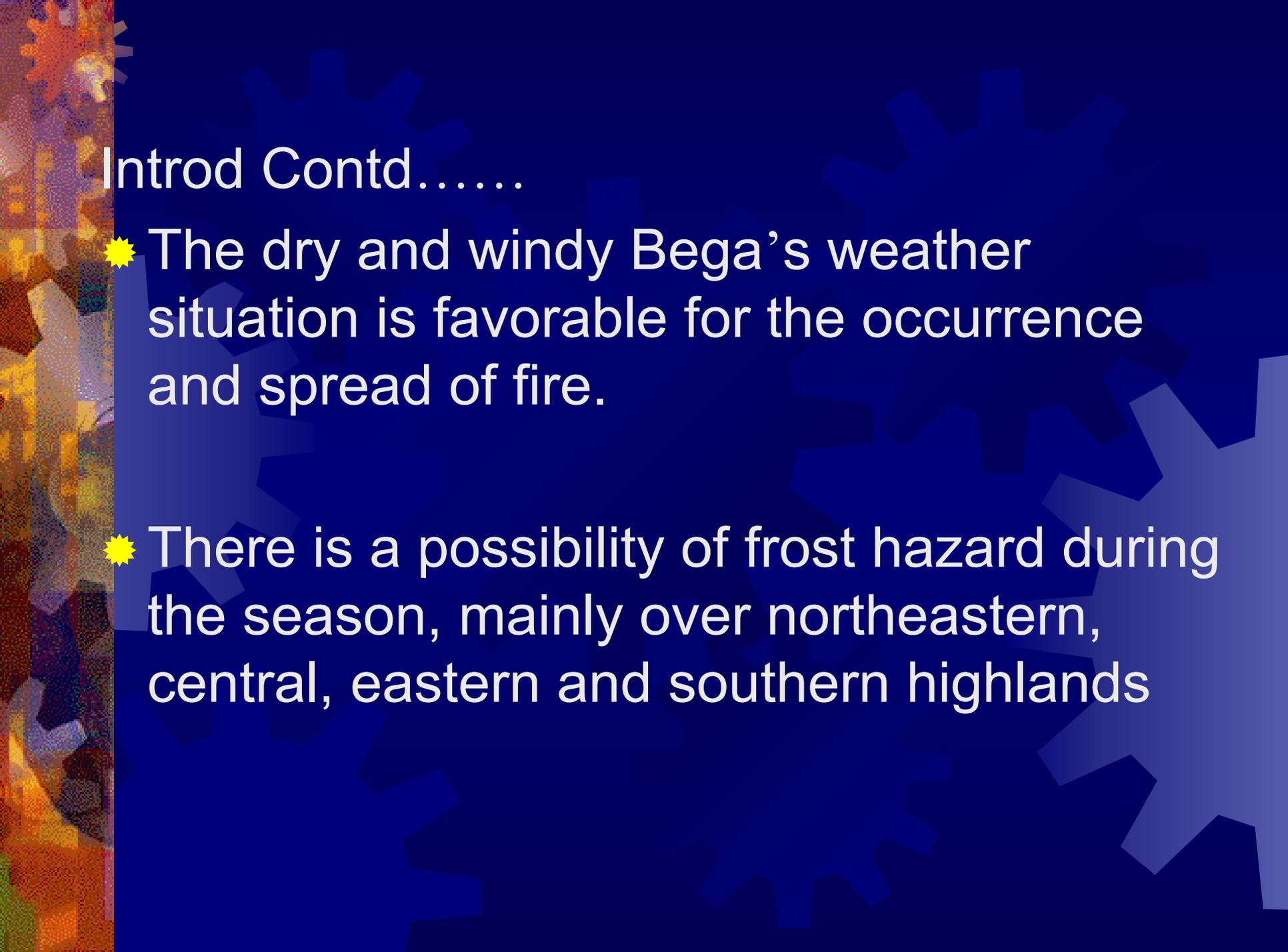
INTRODUCTION

MAJOR AGRICULTURAL ACTIVITIES OF BEGA SEASON

- ✦ Harvest and post harvest activities are the major practices over most parts of Meher growing areas.
- ✦ It is a cropping time for southern and southeastern lowlands of agro pastoral areas.

Introd Contd.....

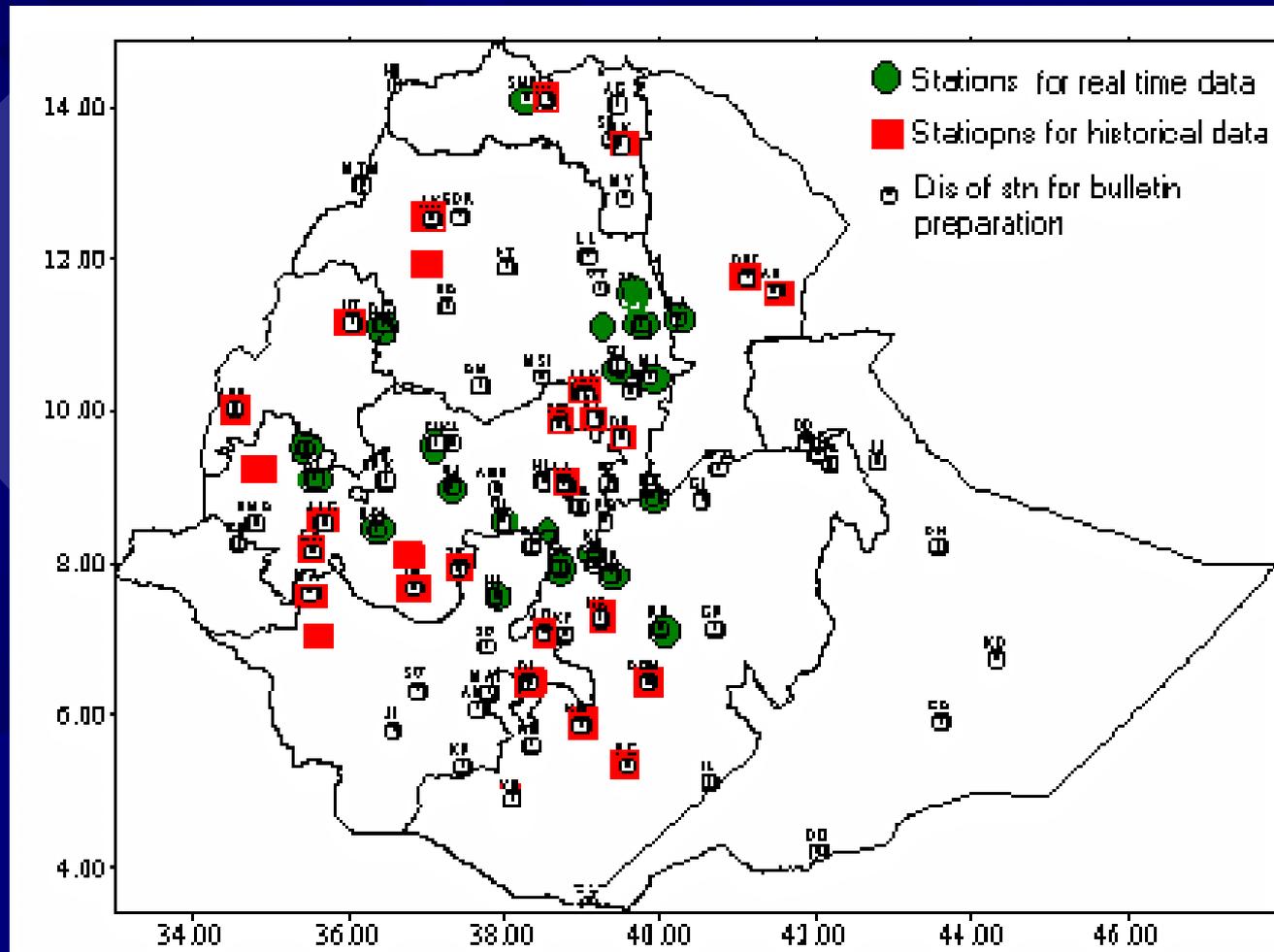
- ✦ It is time to perform water-harvesting activities for pastoral and agro pastoral areas of southern and southeastern lowlands.
- ✦ The weather situation could favour the out break of pests if there is favorable environment, susceptible host and the pest itself (disease triangle).

The background of the slide is a dark blue field filled with various sizes of semi-transparent gears. On the left side, there is a vertical strip showing a close-up of a fire, with bright orange and yellow flames and glowing embers.

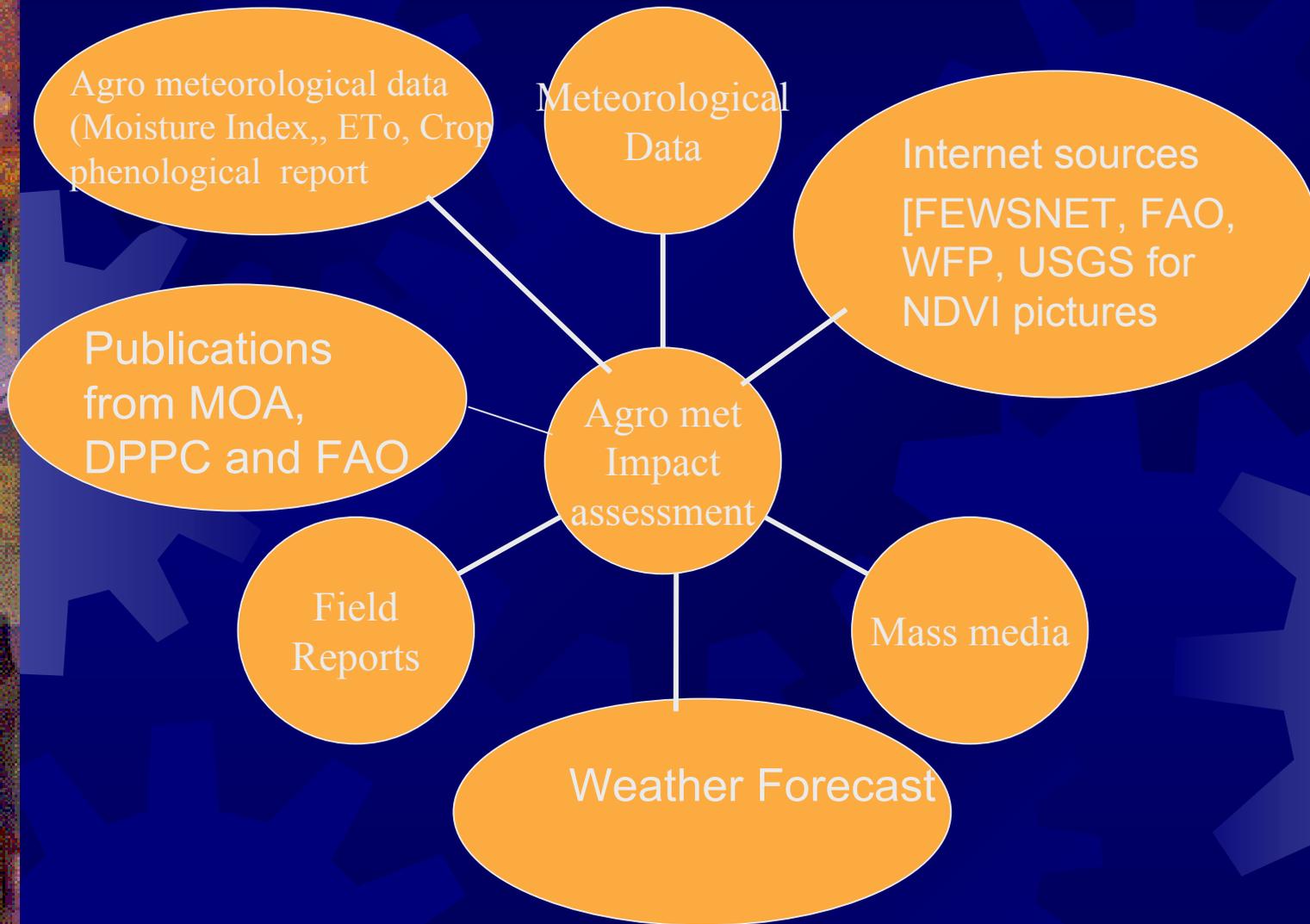
Introd Contd.....

- ★ The dry and windy Bega's weather situation is favorable for the occurrence and spread of fire.
- ★ There is a possibility of frost hazard during the season, mainly over northeastern, central, eastern and southern highlands

Distribution of the stations for agro meteorological advisory services (bulletin preparation)



METHODOLOGY AND DATA SOURCES

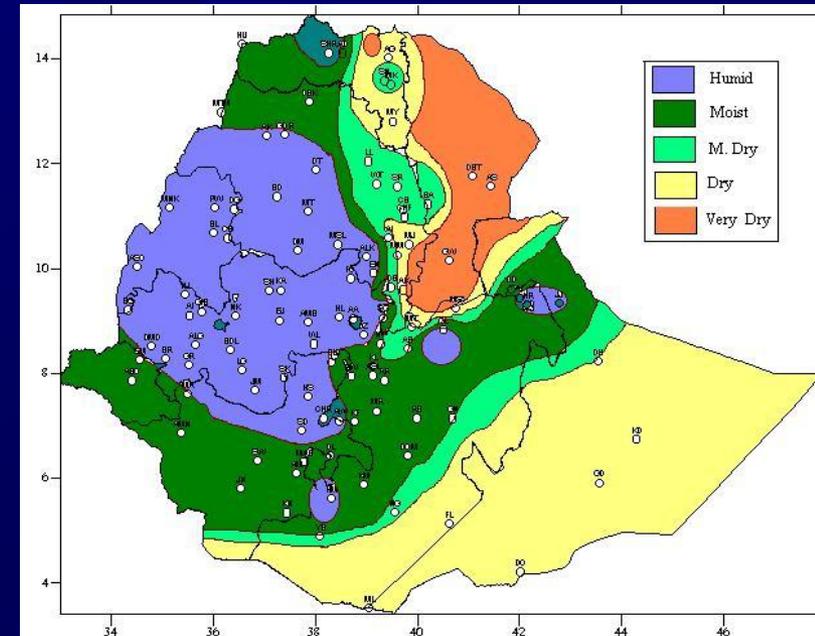




DISCUSSION

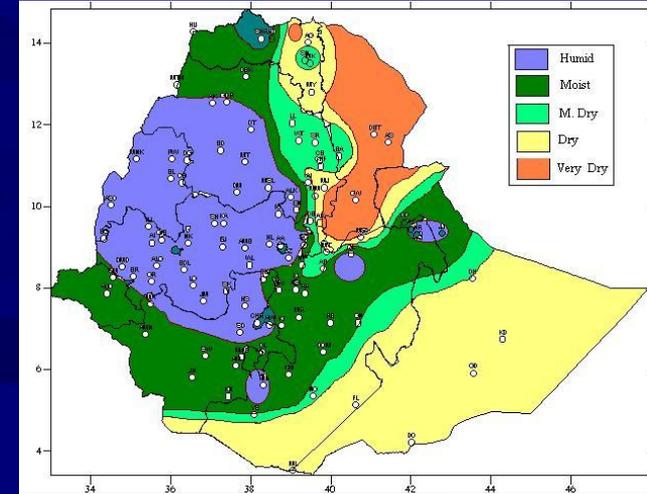
MOISTURE STATUS FOR SEPTEMBER 2005 AND IT'S IMPACT ON AGRICULTURE

- Humid and moist moisture status observed in most parts of Meher growing areas during the month favored crops which were found at different crop phenological stages.
- However the observed heavy falls ranging from 30-74mm resulted in crop damage in some areas like Hosaina (on teff and wheat crop), Bedelle (on teff, sorgum, maize and beans) and Dangila (on teff and maize crops) during the month.



Impact on agri Contd.....

- On the other hand the dominant below normal condition persisted over most parts of Somali, Bale zone and southern Oromiya could have negative impact on the availability of pasture and drinking water over pastoral areas.

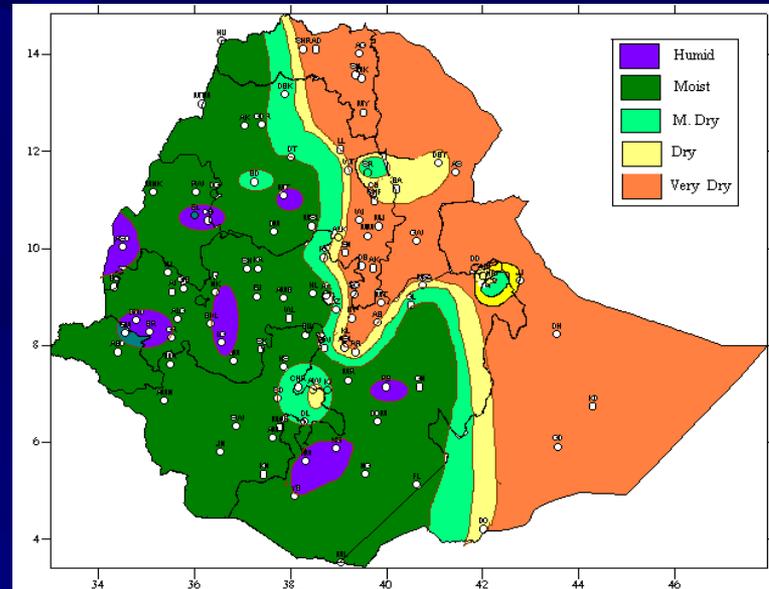


MS Sep 2005

Temperature

- No significant temperature anomaly has been observed during the month of September 2005.

MOISTURE STATUS FOR OCTOBER 2005



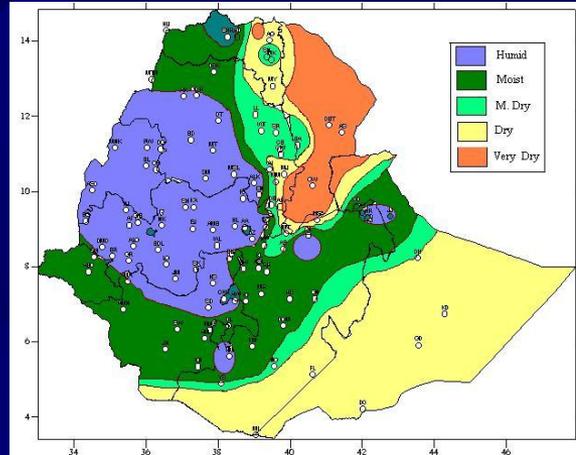
Impact on agriculture

- Generally the performance of crops was in a good shape in most parts of Meher growing areas.
- The deficient moisture condition could have negative impact on the performance of Meher crops in some areas where the onset of Kiremt was late (Eastern Tigray and Amhara)

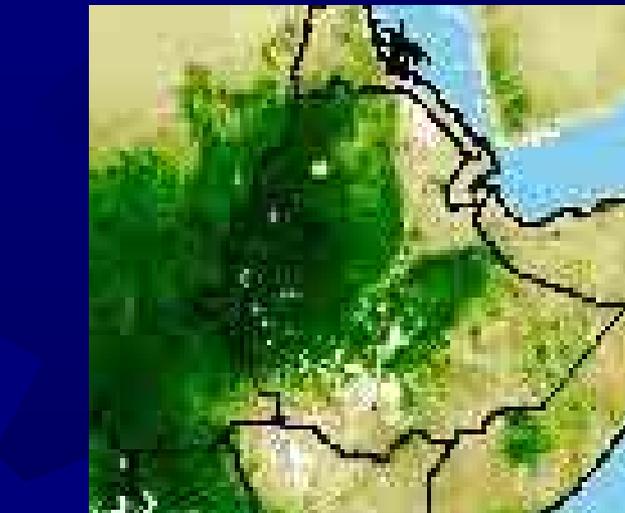
Impact cntd...

- ✦ Harvest and post harvest activities were under way in some areas of central, western and northeastern parts of the country.
- ✦ Some areas like Dolo Mena, Fitch, Assossa, Limu Genet, Shola Gebeya and Wegel Tena reported slight pest and disease damage on cereal, pulses and oil crops.
- ✦ Deficient moisture status over southeastern and parts of southern pastoral and agro pastoral areas.
- ✦ Some areas like Limu Gent and Bedelle reported slight wilting due to moisture stress on cereal crop like teff and millet as well as oil crop like nug.

NDVI PICTURE FOR OCTOBER 2005



Moisture Status September 2005



1-10 October 2005

11-20 October 2005

21-31 October 2005

Source: United States Geological Survey (USGS)

Temperature(October 2005)

- ★ Some areas of central(Fitche Debre Zeit, Debre Birhan, Mehal Meda), eastern (Alemaya), northern (Adigrat) and north-eastern (Wegel Tena) highlands exhibited extreme minimum temperature less than 5°C lowering up to 1.5°C which can have negative impact on normal growth and development of the plant.

Facts from other sources (during October 2005)

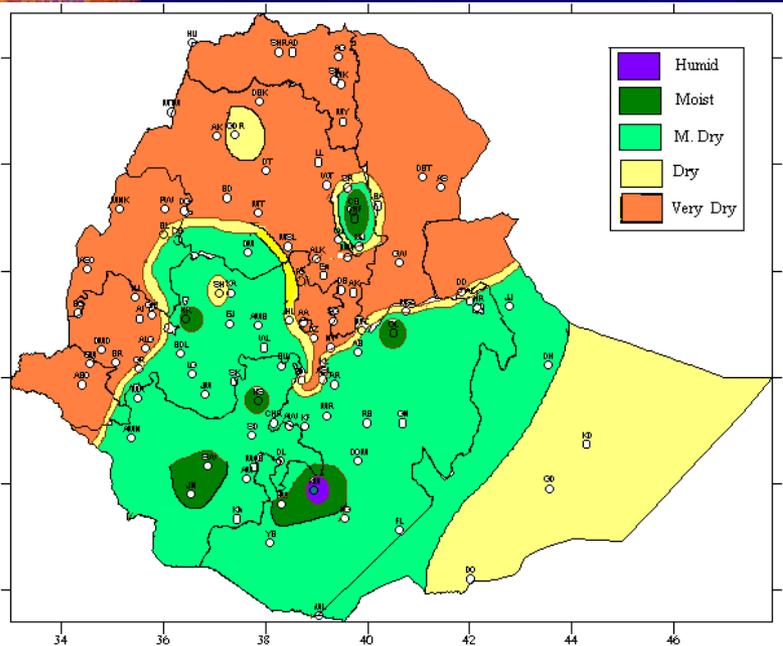
- ★ As MoARD has pointed out no significant crop damage due to occasional falls has been observed during the month of October (Agricultural Bulletin Vol 3 No 4/98 E.C.).
- ★ With regard to pest and disease outbreak, the occurrence of *Quelea quelea* reported in some sensitive lowland areas of the country (some areas of Amhara, Oromiya, SNNPR and Somali). However due to the effective control measures taken by MoARD no significant crop damage has been observed.

MOISTURE STATUS FOR NOVEMBER 2005

Impact on agriculture

➤ Harvest and post harvest activities were under way in most parts of the country as per normal condition.

➤ The observed occasional falls particularly over most parts of central highlands resulted in crop damage in some areas like Hosaina, Majete, Chefa, Bedelle and Alge.



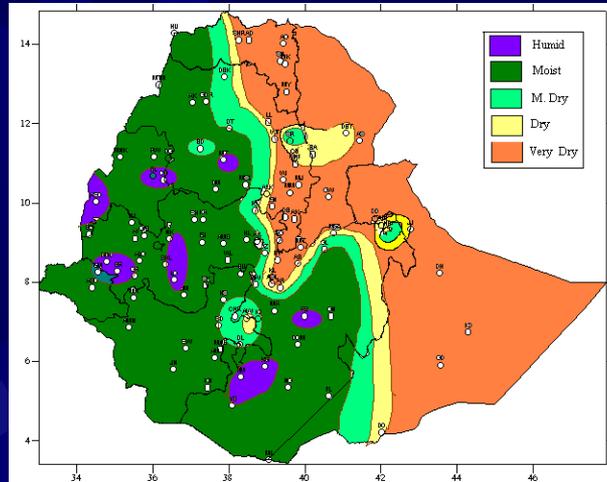
Impact on agriculture Cont....

- On the other hand the wet condition could have positive contribution in areas where crops are not attaining maturity and the availability of pasture and drinking water as well.
- Regarding the situation of southern and southeastern pastoral and agro pastoral areas the cumulative condition was deficient particularly in southern parts of Somali in terms of the availability of pasture and drinking water.

Impact on agriculture Cont...

- ★ Some areas reported crop damage due to pest infestation like Assosa (slight bird damage on sorghum crop). Besides, Shambu reported medium field condition on wheat crop due to sever weed infestation.

NOVEMBER 2005 NDVI



Moisture status of October 2005



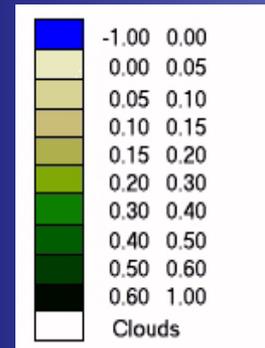
1-10 Nov 2005



11-20 Nov 2005



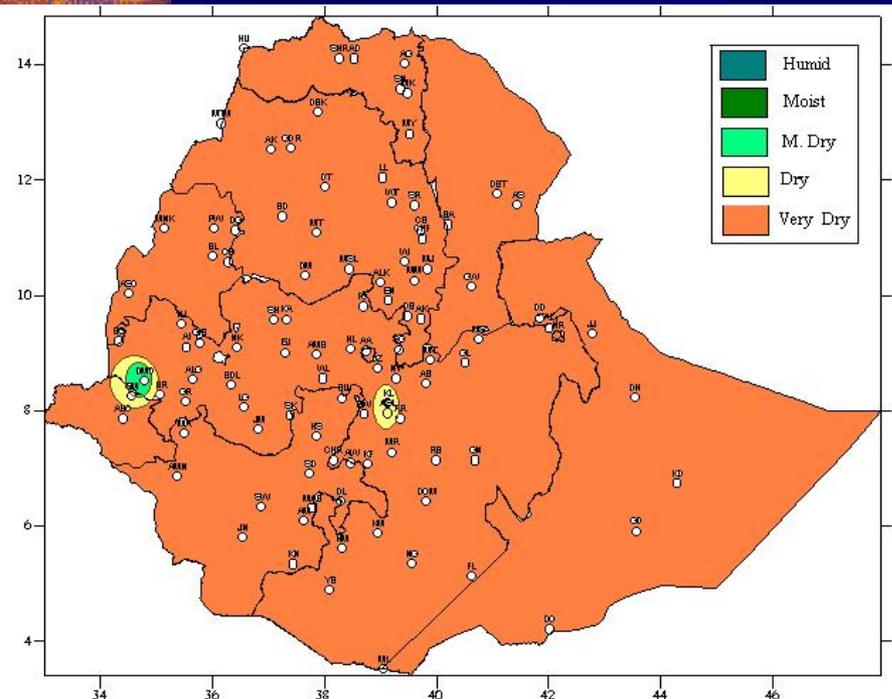
21-31 Nov 2005



Temperature (November)

- ✦ The intensification of cold weather got strengthened towards the last week of the month. As the result some areas exhibited extreme minimum temperature lowering up to -3.5°C during the month.
- ✦ Some areas of central highlands experienced extreme minimum temperature less than 5°C for 6-10 consecutive days which can cause crop damage in terms of optimal temperature requirement of the plant.

MOISTURE STATUS FOR DECEMBER 2005

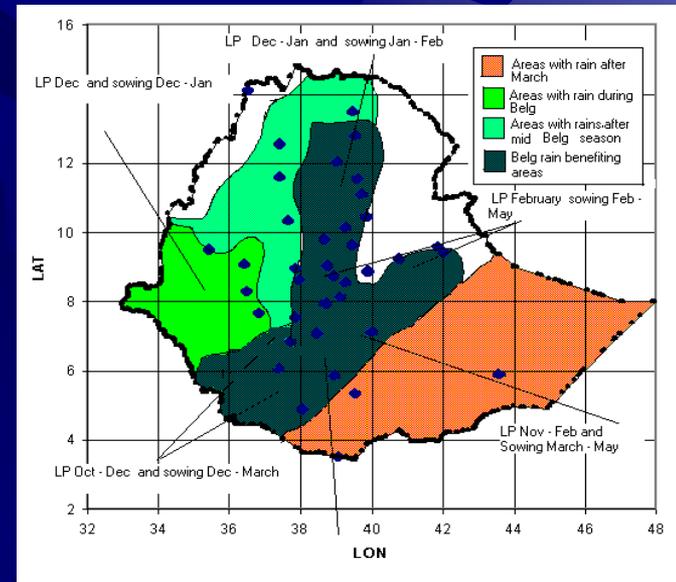
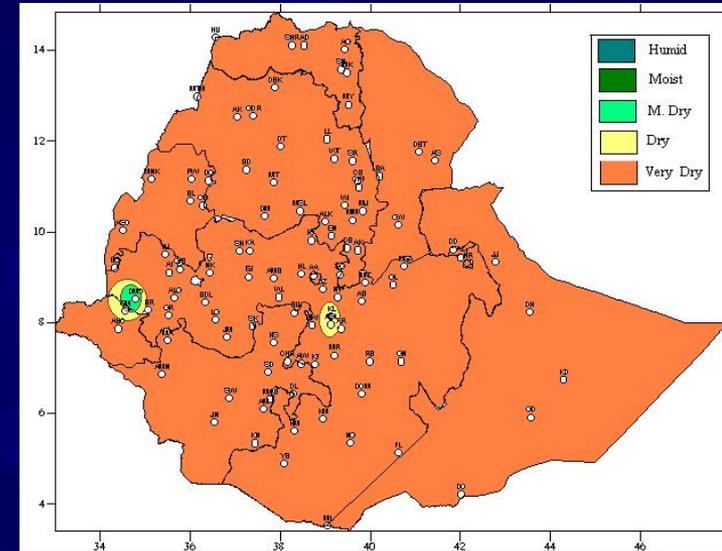


Impact on agriculture

The dry and windy Bega weather condition favored harvest and post harvest activities in most parts of the country where the activities are under question during the month.

Impact on agri Cntd....

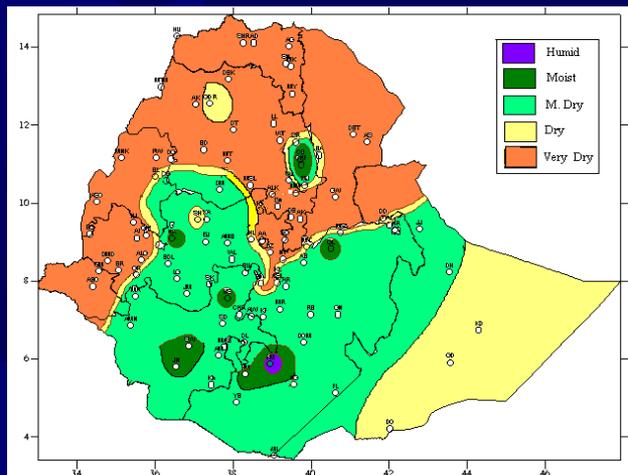
- The observed deficient moisture during the month in some areas of western and northeastern highlands could have negative impact on land preparation to some extent. More over it could affect the water requirements of perennial crops and bushes including affecting the availability of drinking water in pastoral areas.



Temperature(December)

- Some areas of northern, central, southern and eastern highlands exhibited extreme minimum temperature less than 5°C for 20-28 days. Among the reporting stations Addis Ababa (BES), Fiche, Adigrat, Dangla, Wegel Tena and Alemaya exhibited less than 5°C for 24,24,26,26,27 and 28 days respectively during the month. Thus, this condition could have negative impact on plants.

NDVI FOR THE FIRST, SECOND AND THIRD DEKAD OF DECEMBER 2005



MS of November 2005



1-10 Dec 2005

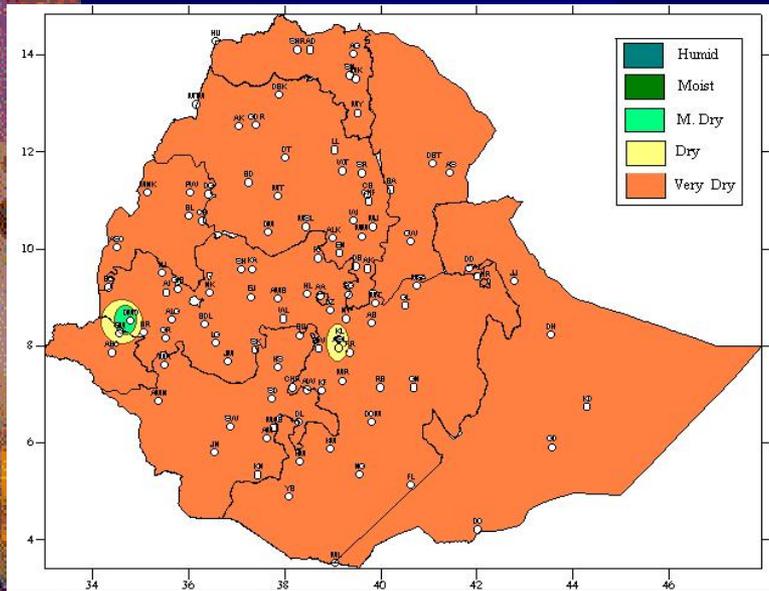


11-20 Dec 2005



21-31 Dec 2005

NDVI for the first dekad of January 2006



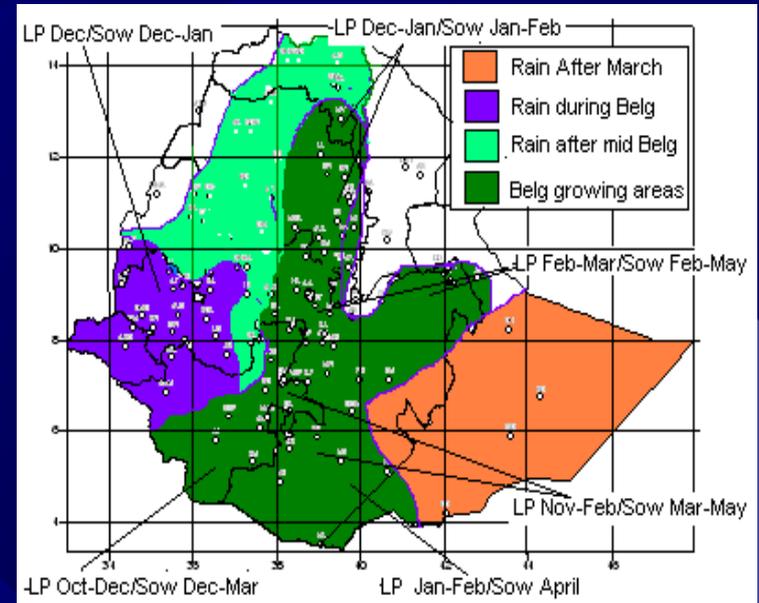
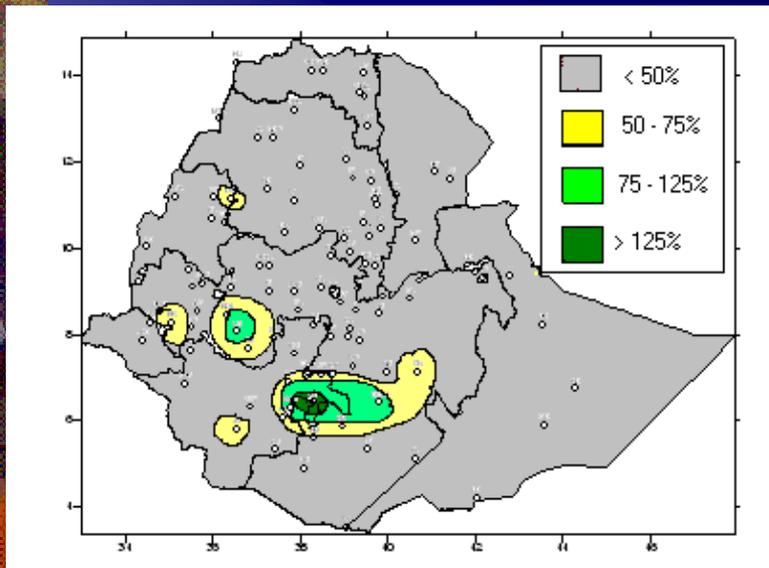
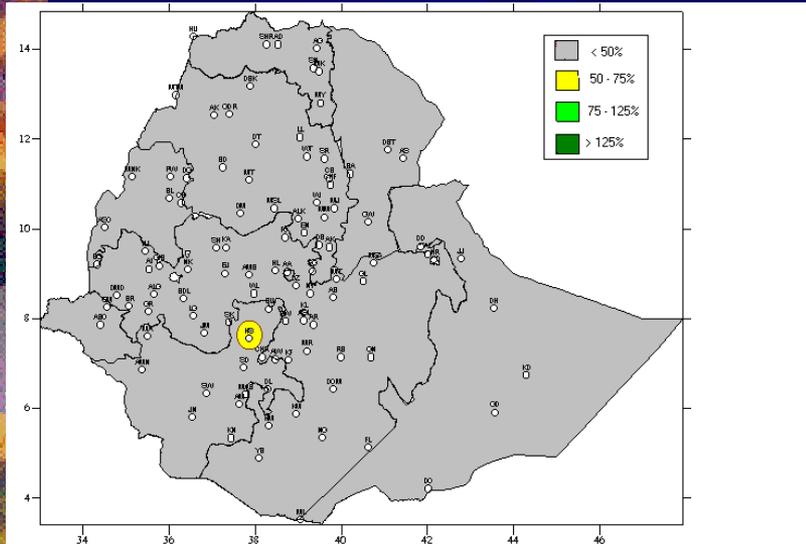
MS for Dec 2005



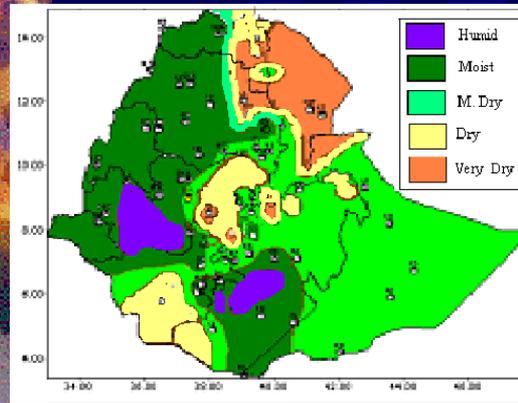
1-10 January 2005

A significant decrease in vegetation cover observed over most parts of the country due to the deficient moisture condition persisted as of November third dekad.

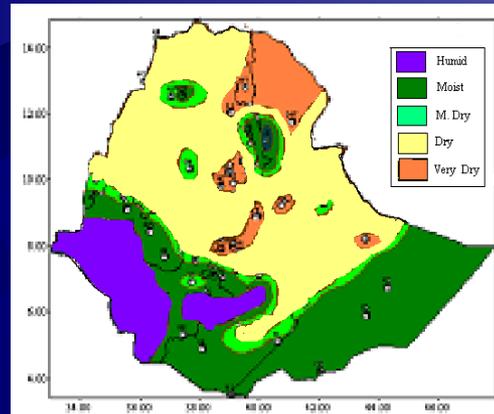
1- 10 and 11- 20 January 2006



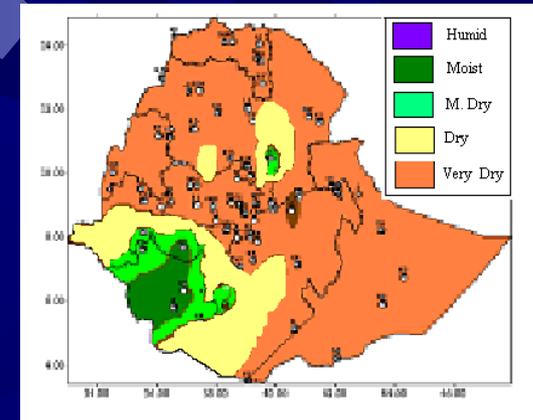
Comparison of last year's conditions with the year 2005



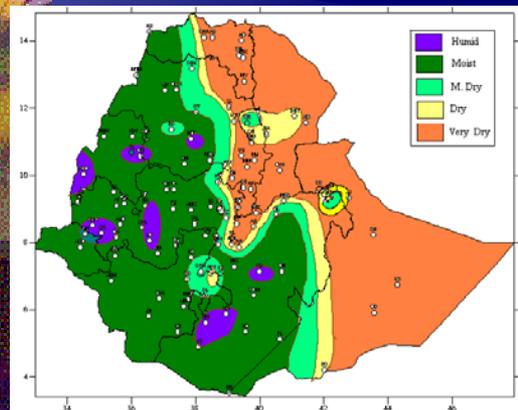
October 2004



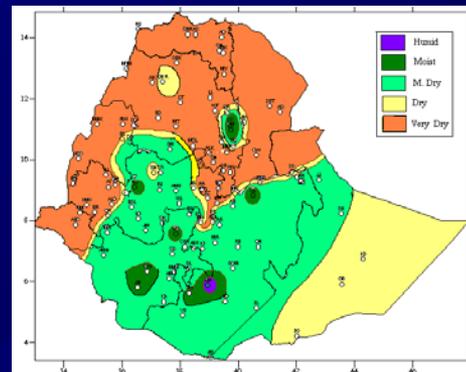
November 2004



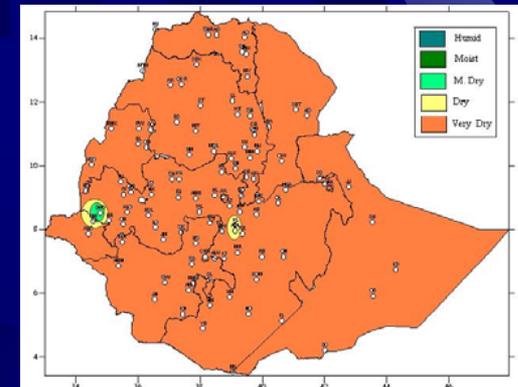
December 2004



October 2005



November 2005



December 2005

Deyr rains have failed in all Deyr receiving zones in the Somali region during the year 2005. In this case better rainfall condition has been observed over the area during the 2004 particularly the months of October and November.



Executive Overview Sub-Saharan Africa

FEWS NET Alert Status Dec 14, 2005

Highest Priority—Urgent Action Required



Chad: Although this year's harvest was exceptionally good, food security remains fragile in deficit areas of Kanem, Logone Oriental and Moyen Chari. Refugees fleeing CAR into Chad face continued hardship as their needs go unmet.

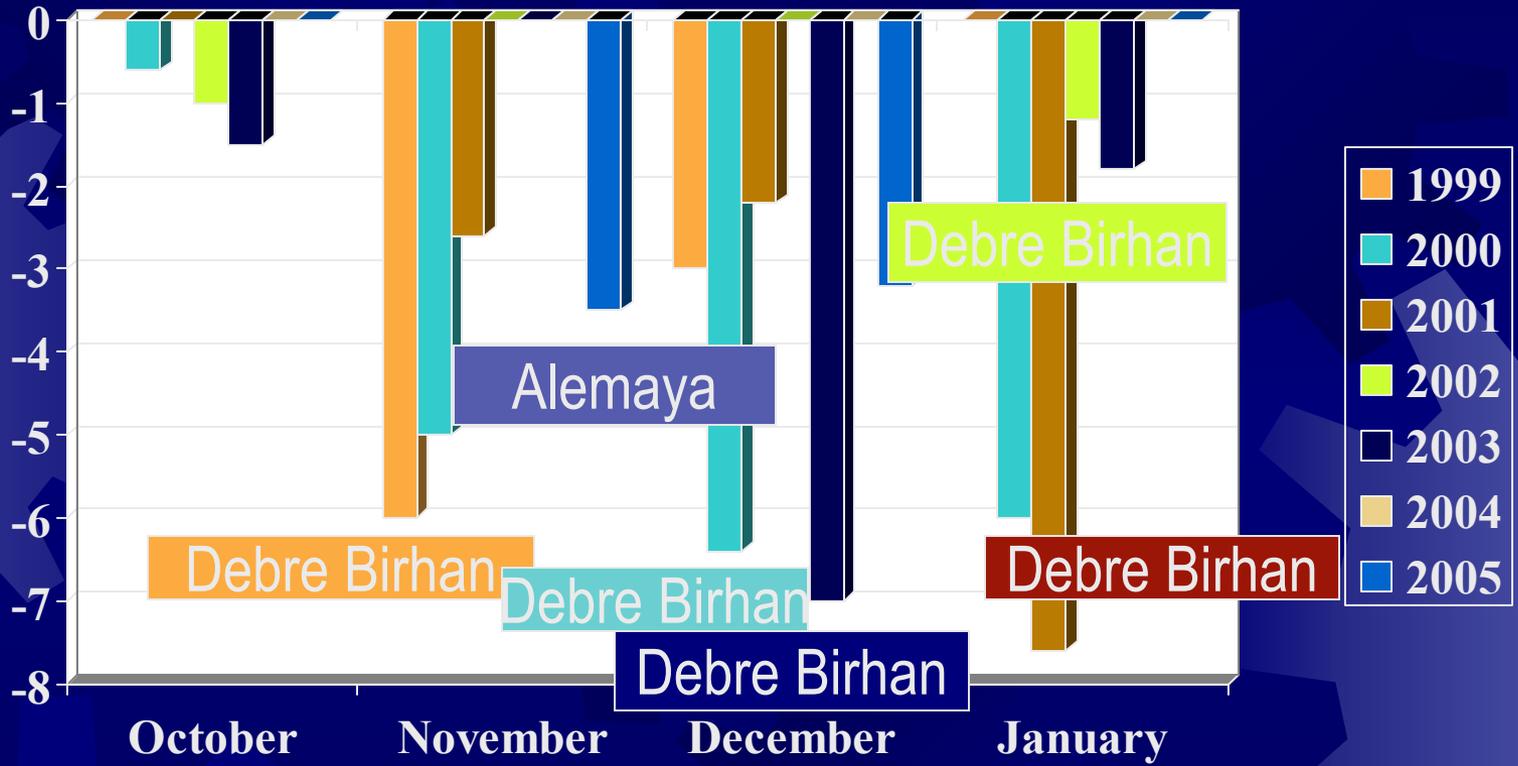


Ethiopia: With the *mekele* harvest nearing completion, food security is improving in crop-dependent zones. But in Somali Region, failed October-December rains could lead to a more acute crisis in an area already severely food insecure.



Somalia: Malnutrition rates among the chronically food insecure in the south remain high. With poor production

Comparison of extreme minimum temperatures for different years



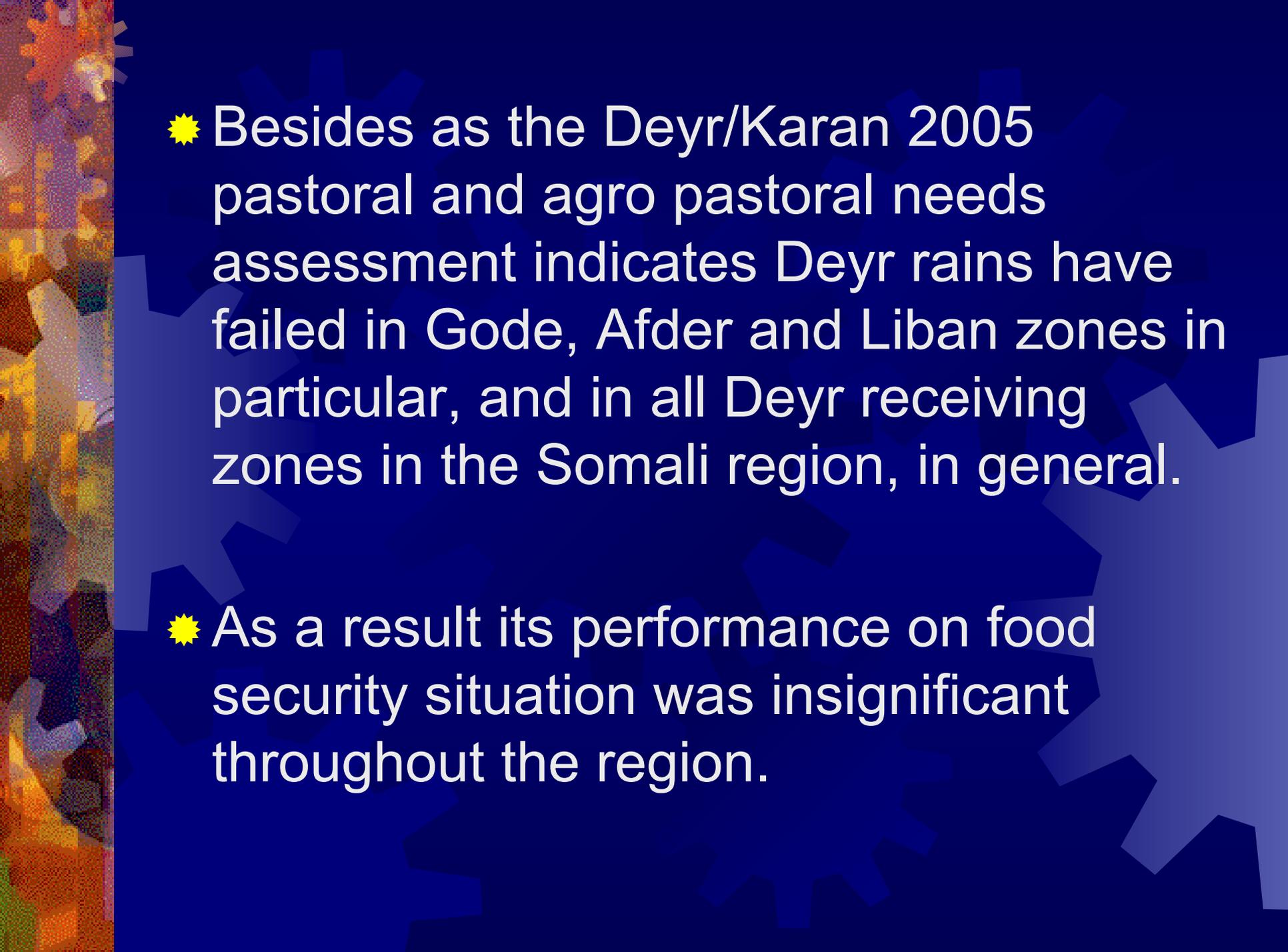
Conclusion

- ★ From the above agro climatic analysis we can confirmed that the overall crop condition over most parts of Meher growing areas was in a good shape thereby the expected performance of yield would be better as compared to last year.

Conclusion Cont....

Pasture and drinking water conditions in southern and southeastern parts of Ethiopia

- As indicated in the above agro climatic analysis and the NDVI picture there was deficient moisture and scarce vegetation conditions in the pastoral and agro pastoral areas of southern and southeastern Ethiopia.

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- ✦ Besides as the Deyr/Karan 2005 pastoral and agro pastoral needs assessment indicates Deyr rains have failed in Gode, Afder and Liban zones in particular, and in all Deyr receiving zones in the Somali region, in general.
 - ✦ As a result its performance on food security situation was insignificant throughout the region.



THANK YOU