

Country: Libya

Institute: Libyan National Meteorological Center

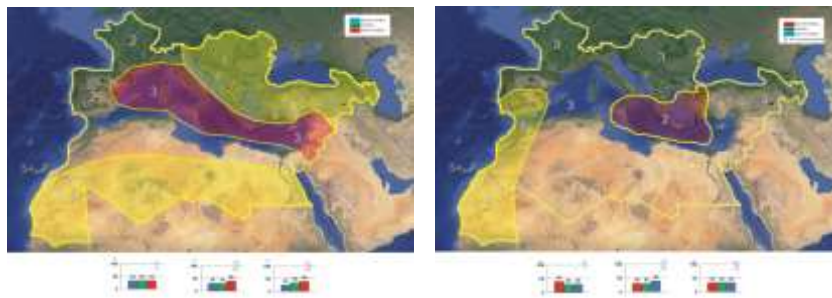
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Assessment of the seasonal forecast for the winter season

DJF 2013-14

1. MedCOF-1 Climate outlook for the 2013-14 winter season:



Graphical presentation of the 2013/14 winter temperature & precipitation outlooks

According MedCOF-1 Climate outlook for the 2013-14 winter seasons of Libya, high uncertainty dominated over the country (region of category 1 and 2) but a remarkable weak positive tendency of upper tercile was expected in the northern parts of the country while in the southern parts (Sahara) of the country no signal was predicted. In general, climatology assigned for all categories.

For the precipitation, all country located under category 3 of the prediction which is not preferring any tercile over another one (the 3 terciles have the same probabilistic consensus).

2. Analysis of the 2013-14 winter season:

Climate of December 2013:

Mean air temperature of whole country reach to about 13 C; while the western parts were colder than the others (11 C), but the coastal places reported warmer temperature mean (15 C). By the anomaly language whole country experienced negative tendency (- 0.6 C) except the north eastern and south eastern parts which reported normal anomalies (0 C).

Mean monthly precipitation of the country was about less than 1 mm/day. However, the coastal rainy places in the north (represent about 5% of the total land) reported about 2 mm/day where the west coastal more rain than the east. About 40% of the precipitation increased in the western coast parts whereas about 20% was increased in far of the eastern coast parts. The rest of the country remained at the normal level of (1981-2010) rainfall climatology.

Climate of January 2014:

Air temperature monthly mean was around 14 C, over whole country. All south parts reported temperature colder than north parts in particular over coastal places which experienced little bit warmer mean (about 16 C). In another side all country reported positive anomalies (about 1.0 C) in an average, where the highest anomalies cantered at the north western parts (2.1 C). In general, north parts reported anomalies (2.0 C) higher that reported at southern parts (0.9 C).

Precipitation patterns were different this month (dry pattern dominated over whole country) and less than 0.3 mm/day represented the country average of precipitation. Only some parts in west and east of the North Country reported slight rainfall reached in average to 4.5 and 1.5 mm/day respectively. As a result of that strong negative anomalies appeared over most parts of the North Country (- 50% in an average) to reach even to - 80% in some points in the middle coast. While the rest of country experienced normal anomalies (0%).

Climate of February 2014:

Air mean temperature of the country this month got little bit warmer than last month to be about 16 C. South eastern parts reported coldest mean monthly temperature reached until 13 C, whereas as reached to 17 C, at some coastal places in the west side of the country. Most of the country still under the effect of high positive anomalies (average of 2 C), particular over the western parts which were reported the highest positive anomalies (2.5 C). Versus to that, the far south eastern parts experienced negative anomalies to reached an average of -0.5 C.

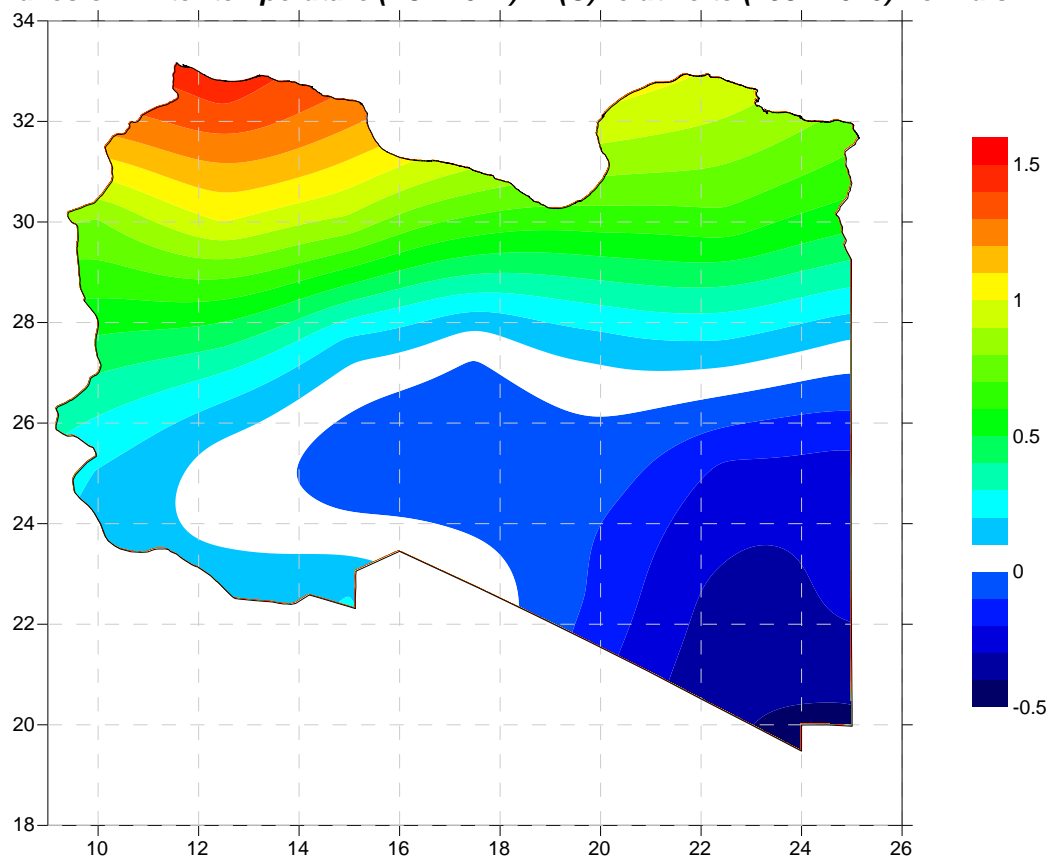
Precipitation pattern still the same as previous month and the average of less than 0.4 mm/day was the country mean. The north coast places reported more quantities of precipitation relative to the general mean of the country where were about 1.0 mm/day in the east side and 0.6 mm/day in the west side. No significant anomalies reported over the whole country this month (0%) except

over some places in the middle coast which were experienced some negative anomalies (- 40% of the normal climatic records).

- **Climate of (December 2013 - February 2014), winter season 2014:**

Mean temperature of this season was around 14.5 C, over the complete country, where the western parts reported coldest mean (12.0 C), while the coastal places reported the warmest mean (16.0 C). Mean temperature anomalies can be averaged over the whole country to be 0.3 C, (positive trend). In the contrast, western parts reported more positive anomalies (1.0 C), than at the eastern (0.6 C). While the negative anomalies of average (- 0.4 C) reported over most of the southern parts.

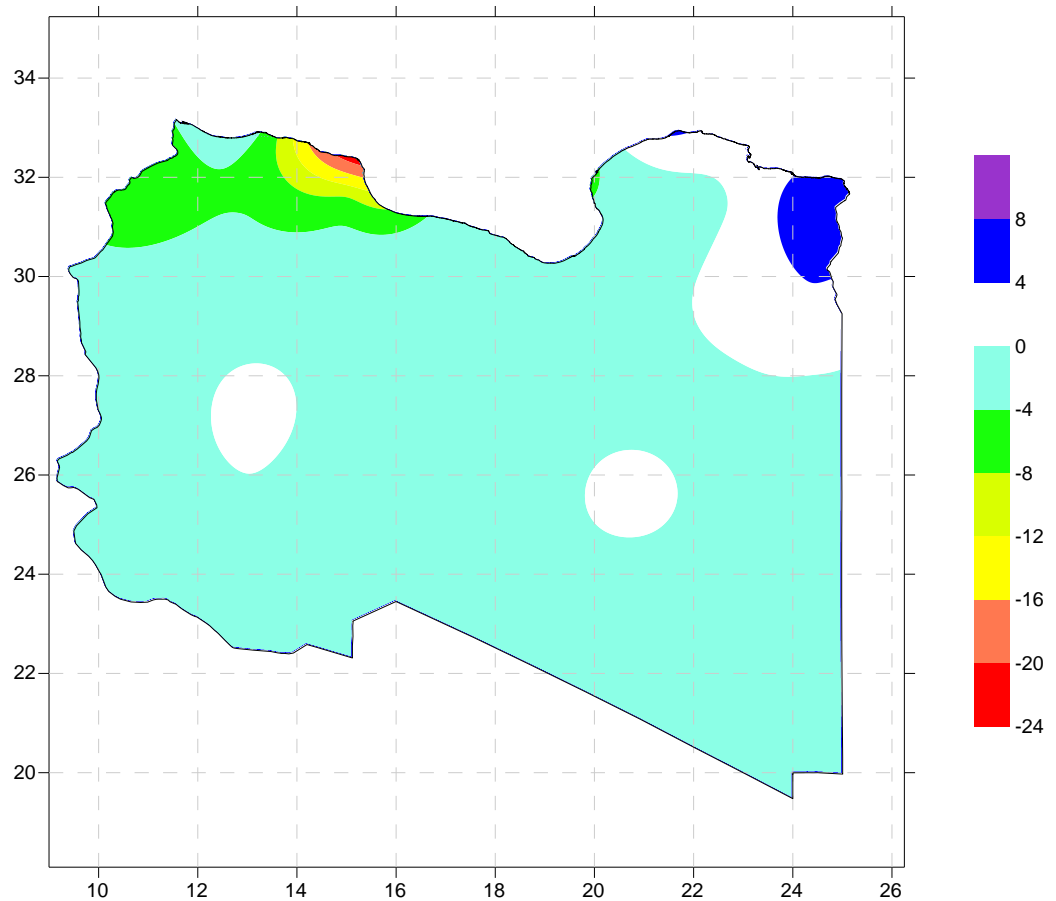
Anomalies of winter temperature (DJF 2014) in (C) relative to (1981-2010) normals



Winter season precipitation was around less than 0.8 mm/day, over the country. All the precipitation concentrated over the north parts, especially over along coastal strip, with the mean of 1.2 mm/day, this mean became slight higher in the east side than the west. All country parts mostly located under the effect of negative anomaly pattern with average of - 10%, excluded some small points and places in the east parts which had a slight positive trend anomaly with average of (4%). Northern west parts entirely affected by the

significant negative anomaly pattern to extended of some parts toward of south with average of about -12%.

Anomalies of winter precipitation (DJF 2014) in (%) relative to (1981-2010) normals



Note: all anomalies computed the climatological reference period of (1981-2010).

3. High Impacts Events:

- Moderate drought occurred over the country during the January 2014, while normal to mild drought occurred during the February 2014.
- Flash floods or local floods events (defined locally as a daily rainfall exceeds of 90th percentile of its climatological records) reported at the first day of December 2013 to strike some places of Tripolitania region in the west.

Note: any damages not accountable.

4. Verification of the MedCOF-1 climate outlook for the 2013-14 winter season:

Country	Seasonal temperature (DJF)		Seasonal precipitation (DJF)	
	Observed	MedCOF-1 climate outlook for temperature	Observed	MedCOF-1 climate outlook for precipitation
Libya	Above normal	Above normal	Below normal	No clear signal

Note: the climatological reference period is for (1981-2010) normals.

5. Users' perceptions of the MedCOF-1 outlook

Not applicable so far.