

Third MEDARE (WMO) Workshop

***MEDARE Expert Group meeting on
Developing an implementation strategy for
building Mediterranean long-term, high quality
and homogenised climate datasets
(27-28 September 2012, Istanbul, Turkey)***

Libyan Presentation

By

Khalid Ibrahim Elfadli

Director of Climate Services National Project

kelfadli@yahoo.com

Libyan National Meteorological Center (Inmc)

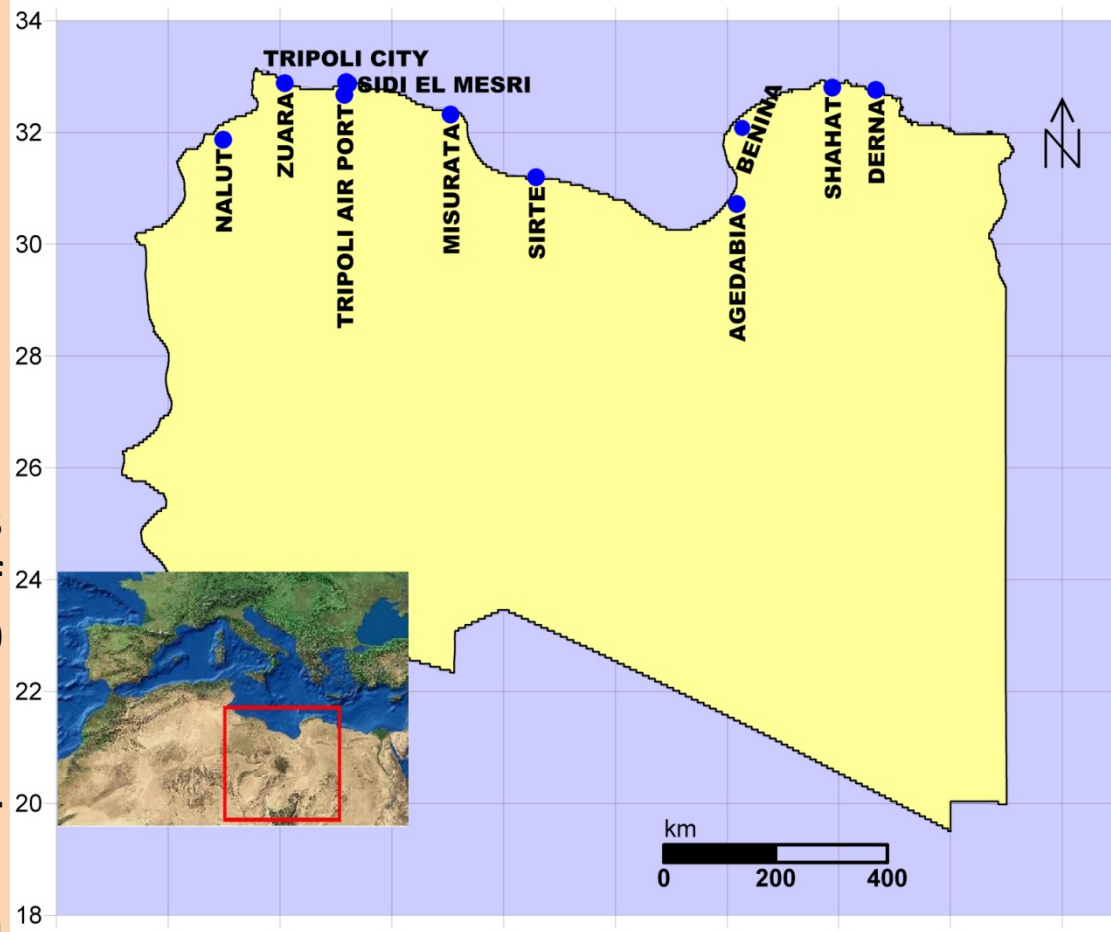
Chair of MEDARE recommended that:-

Country presentations should focus on:

Provision of details on the climate records each country/NMHS will contribute to the MEDARE database (no. of records, lengths, identifiers /locations, potential to fill in gaps and/or extend time-series back in time)

11 stations have been selected by Libyan National Meteorological Center (Inmc) to be as a part of MEDARE network in its first phase , which are characterized by:

- Geographically most of stations distributed along the coast side of Mediterranean trough a bout 1.800 km
- Density of stations at the western coast more little bit than of the other coast
- Considered as the oldest stations in Libyan meteorological network consequently have the longest time series of daily climatic data



Libyan-MEDARE stations network

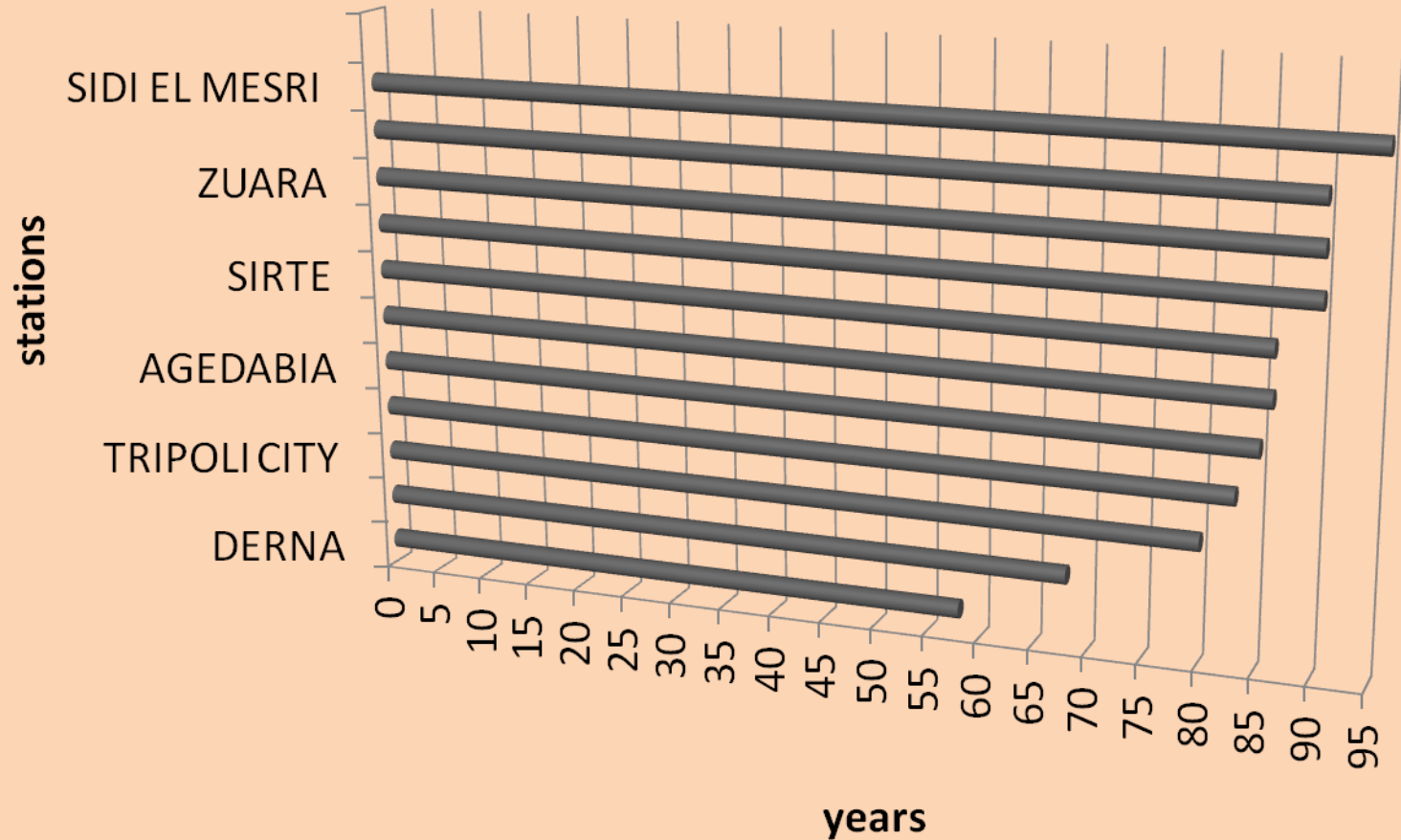
In agreement of MEDARE project the following time series of daily climatic variables will be involved in the MEDARE data-base of its first phase:

- **Daily maximum temperature**
- **Daily minimum temperature**
- **Daily amount of precipitation**

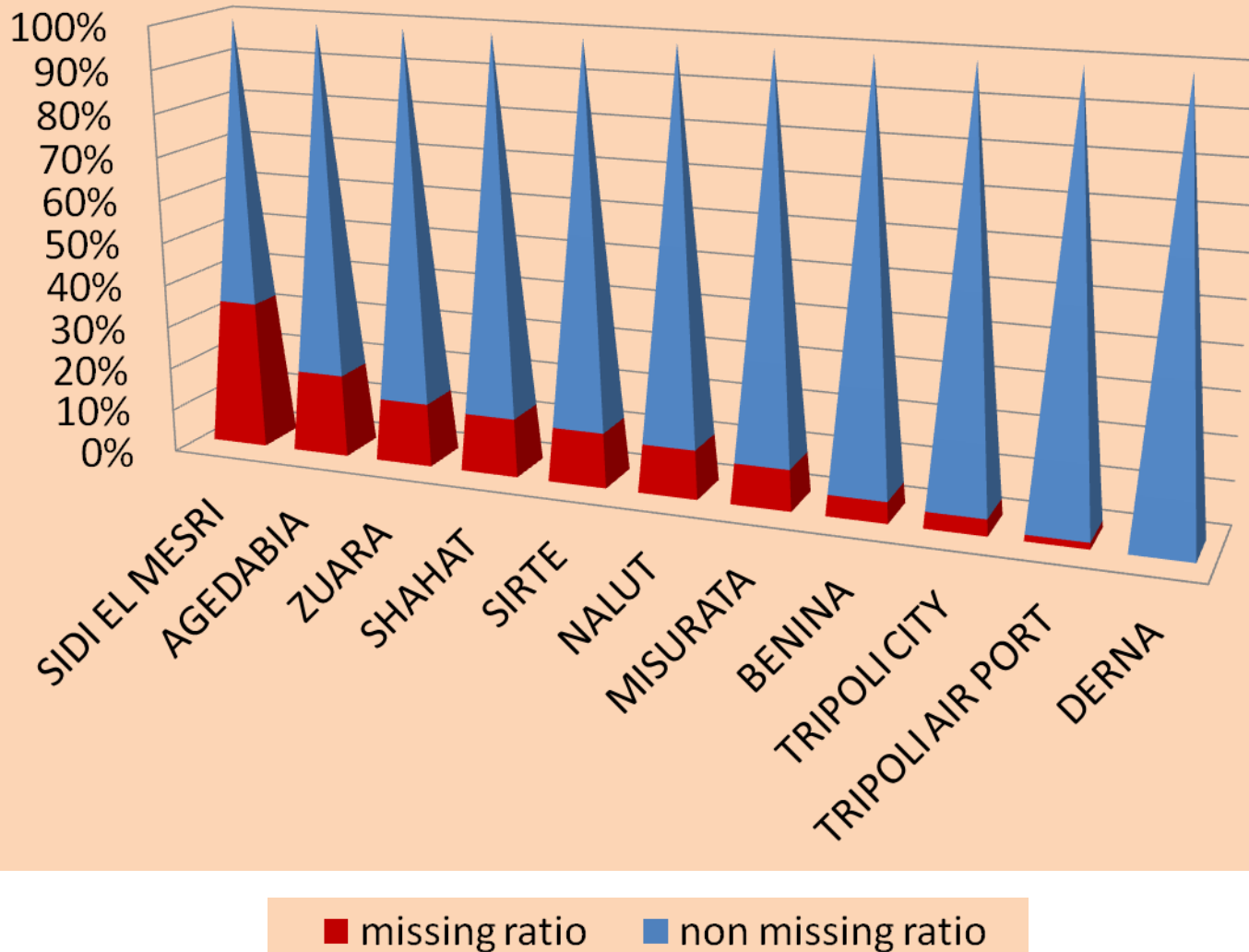
Meta-Data of Libyan-MEDARE stations

Stations	Lat. N	Long. E	Elevation (m)	WMO id	Records period
NALUT	31.87	10.98	621	62002	1920-2010
ZUARA	32.88	12.08	3	62007	1920 - 2010
TRIPOLI AIR PORT	32.67	13.15	81	62010	1943 - 2010
TRIPOLI CITY	32.9	13.18	25		1925 - 2004
SIDI EL MESRI	32.87	13.22	25		1916 - 2010
MISURATA	32.32	15.05	32	62016	1925 - 2010
SIRTE	31.2	16.58	13	62019	1925 - 2010
AGEDABIA	30.72	20.17	7	62055	1924 - 2010
BENINA	32.08	20.27	132	62053	1921-2010
SHAHAT	32.8	21.88	648	62055	1921 - 2010
DERNA	32.76	22.66	10	62059	1952 - 2010

Length of climatic daily records of temperature (max. & min.) and precipitation in years



Total missing periods (gaps) in percentage of years for daily temperature (max. & min.) and precipitation climatic records



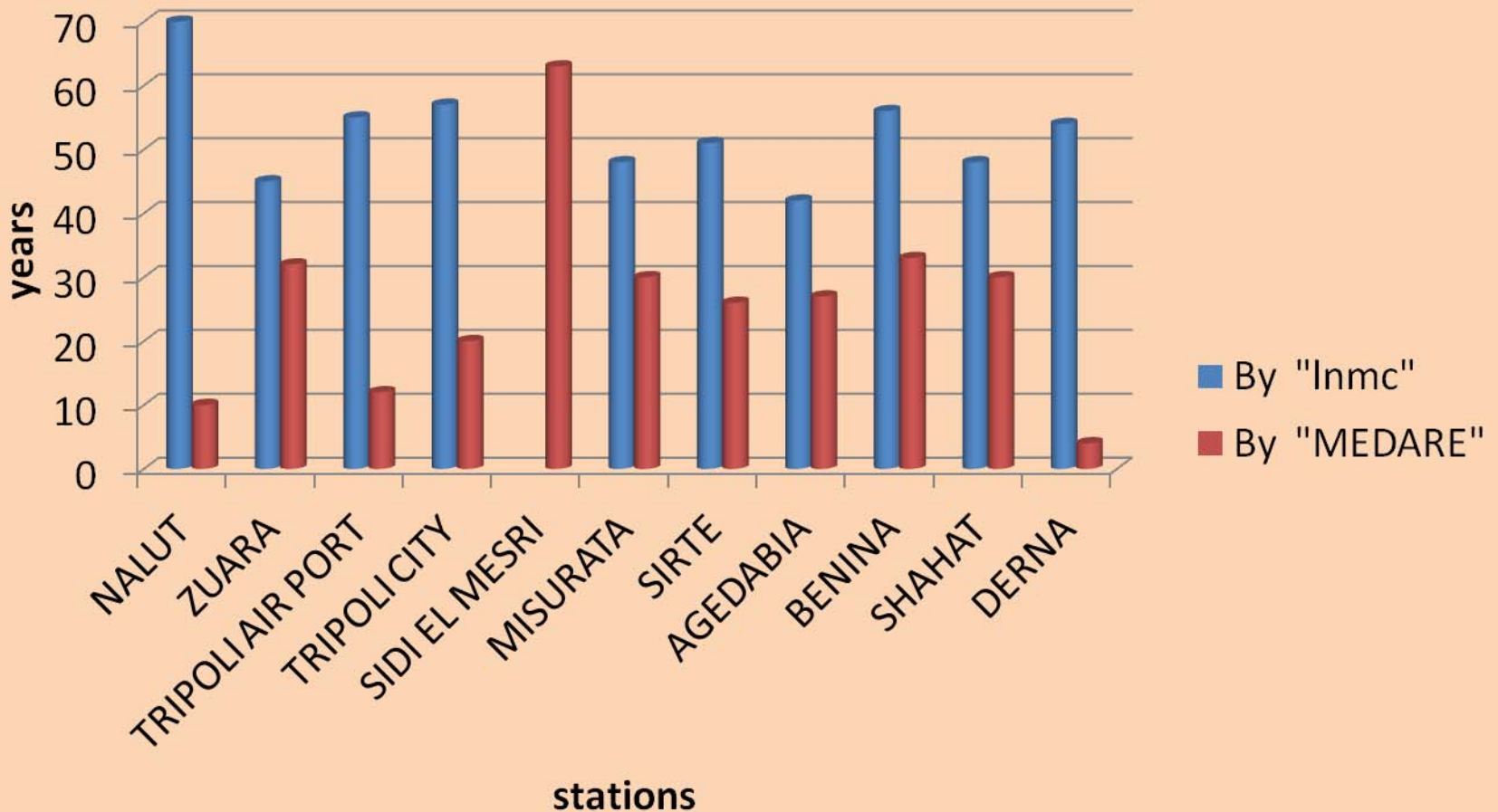
Length and gaps of climatic daily temperature (max. & min.) and precipitation records

Stations	records length (years)	missing ratio %	Non-missing ratio %
SIDI EL MESRI	95	34	66
AGEDABIA	85	19	81
ZUARA	90	14	86
SHAHAT	90	13	87
SIRTE	86	13	90
NALUT	90	11	89
MISURATA	86	9	91
BENINA	83	5	95
TRIPOLI CITY	80	4	96
TRIPOLI AIR PORT	68	1	99
DERNA	58	0	100

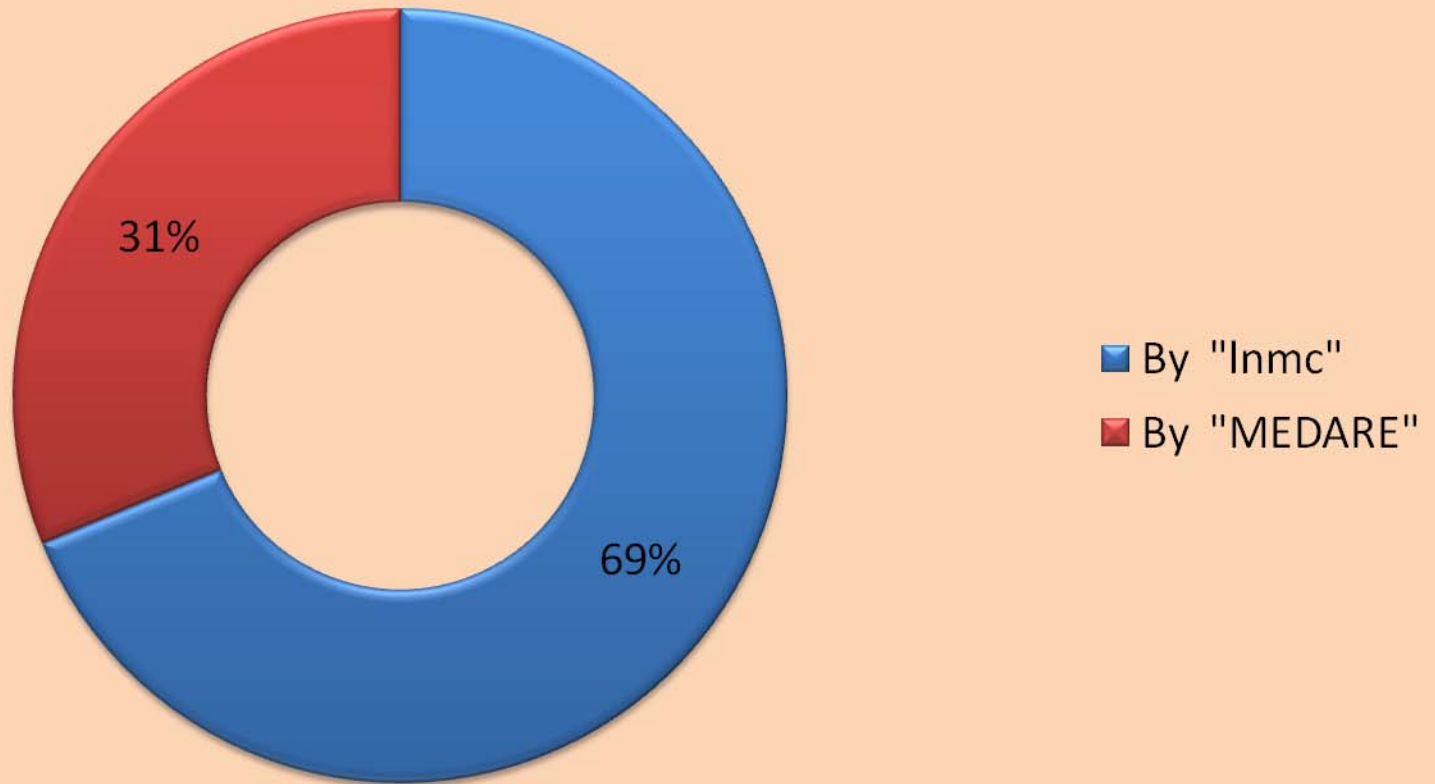
Global gaps in percentage of years of selected 11 stations for daily temperature (max. & min.) and precipitation climatic records



No. of digitizing years of temperature (max. & min.) and precipitation climatic daily records by "Inmc" & "MEDARE"



Global digitizing percentage of years of selected 11 stations for climatic daily temperature (max. & min.) and precipitation records



conclusion

- **Inmc contributes by 11 stations to the MEDARE database**
- **Temperature (max. & min.) and precipitation climatic daily records will be involved in MEDARE database for whole above stations**
- **Longest time series is 95 years in length (Sidi elmesri) and the shortest is 58 years in length (Derna) associated by longest missing ratio 34% and the shortest of 0% respectively**

Conclusion (cont.)

- No regular daily weather observations made before 1916 in Libya and some records of some 11 stations till 1925 not found in our archive and just current daily records are available so we couldn't extend any time series back in time any more
- MEDARE performed and contributed by 31% of digitizing daily records of temperature (max. & min.) and precipitation variables for whole 11 stations (especially oldest years) just during last 3 months **“Thanks for MEDARE”**

Conclusion (cont.)

- QC , homogenization and may filling gaps processing (that will be documented) of time series will be led by MEDARE latter on for producing improved datasets of daily climate data

**THANKS FOR
THE ALL**