

## **PUBLIC WEATHER SERVICES IN TRIPOLI**

**11.6**

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### **ABSTRACT:**

It is very important to have an understanding of how people access and use weather information and services. Knowing what they think of the accuracy, timeliness and usefulness of the weather services will assist LNMC with future planning of products and services.

This work comes from the results obtained from a public survey conducted in Tripoli, Libya, during February 2008. The aim of the survey was to investigate the public perception of the weather forecasts broadcast on the Libyan national TV channel.

The questionnaire consisted of a number of questions prepared to explore public opinions and attitudes on TV weather bulletin techniques. Also, it included some questions about the public's understanding of weather graphics, symbols and terms used widely in weather language.

Statistical analysis has shown very important results. For example in Tripoli, 25% of respondents said that they accessed weather information daily from TV forecasts, 56% answered sometimes, and 19% said they never did. Moreover, 57% of the survey respondents said they use weather information for work purposes; while a significant number indicated that they make their decisions based on or influenced by the effect of weather on their travel, dress and food.

The respondents' overall satisfaction and perception of the accuracy of the TV weather

forecasts was 24% good, 70% answered acceptable, and 6% said low.

Finally, some suggestions recommended the development of personal scientific weather knowledge and presentation skills to improve the public weather services' culture in Tripoli, and increase its benefits, hoping eventually to conduct this survey in other cities or in Libya in general.

### **INTRODUCTION:**

Public weather services are delivered to the people through many media types, such as national and local radio stations, TV channels, SMS in mobile phone networks, INTERNET and the printed press. Delivering weather information through these sectors is considered to be an integrated chain linking the National Meteorological Services (NMS) with the general public users through the media sector (Figure 1).

Therefore, the benefit and effectiveness of weather services depend upon the three parts of that chain. The quality and credibility of the produced weather information are the NMS's responsibility, however, the dissemination of that information is media dependant through updated presentation techniques and timely delivery, while the public needs to fully understand the exact meaning of the weather forecasts and warnings to correctly respond to them and take practical action accordingly in daily life.

Many publications highlight the relationship between the NMS, the media and the general public in many places of the world. WMO (1987) has represented different aspects with some historical background of meteorology and the media. Furthermore, the work includes an analysis of the WMO's inquiry about this relationship and important results were discussed. Also, WMO (2001) published guidelines on the graphical presentation of public weather services products for member countries to reduce the technical gap which

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appeared between weather information and its presentation style or form to the public.

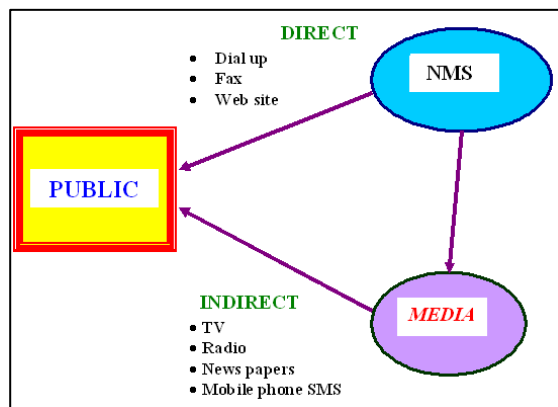


Figure 1: Targeting the public via many means to provide weather information with different volumes and level of details.

Nenadic, et al. (1997) published some recommendations which came from a survey of an opinion poll carried out in Croatia about weather presentation on Croatian television. The recommendations of the weather presentation included weather reports, presentation techniques and the presenters' skills for both Croatia and other countries in the world.

Fleming (2008) discussed the importance of a strong feedback mechanism on the relationship between the public weather services and the media, which would give the NMS many benefits regarding the level of the public perception and the actions which should be taken to improve the presented weather services.

The main objectives of this research are to study the relationship between the public and the delivered weather services on Libyan TV once television has more viewers than other sectors since visual broadcasting was launched in Libya in December 1968. Presenting the TV weather bulletins started in early 1980 with one bulletin after the news and now has increased to four

presentations daily. Tripoli has been selected because it has the highest population in the country with different levels of education and personal attitudes. Besides, it is hosting the Libyan National Meteorological Centre (LNMC) and the researcher's residences. Finally, since this work is a result of the first survey carried out in Libya on presenting weather services and the public's perception, it should be regarded as an orientation research which shows important indications on the subject.

#### DATA SOURCE:

The studied and analyzed data of this research comes from the distributed questionnaire in Tripoli during February 2008. It consisted of 13 alternative and multiple choice questions, with another 3 open type questions to classify the respondents' sex, age and education level. The direct method was used in conducting this survey for a random population totaling 350 people. However, the selected sample for this study obtained from the total surveyed population, was 200 only, while 150 were rejected due to unclear or incomplete answers.

#### DATA CHARACTERISTICS:

The general characteristics of the studied data can be expressed from the three open type questions about sex, age and education level. For sex, the data has exhibited a semi balanced group of 49% male and 51% female participants. Furthermore, age categories have shown that the majority of respondents lie between 26 and 35 years old, which present 50% of the sample, however, those older than 46 years form the minority of the sample with 5%. Age categories have added a strong value to the answers of the questionnaire indicating a clear responsibility and reliability with a considerable credibility.

The sample level of education, as represented in Table 1, shows a clear concentration

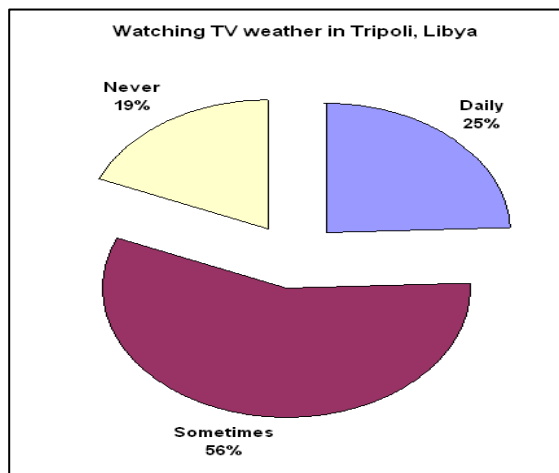
of a university level category (B.Sc. or MBA) with 53.5% of the sample. This could be another advantage for the undertaken survey that proves it contains much considered valuable views and answers from highly educated contributors.

<i>Education level</i>	<i>Number</i>	<i>%</i>
Primary	6	3
Preparatory	8	4
Secondary	18	9
Different institutes	51	25.5
University (B.Sc., MBA)	107	53.5
Higher (MSc, PhD)	10	5
Total	200	100

*Table 1: Education level data.*

**DISCUSSION AND DATA ANALYSIS:**

Figure 2. has shown that most respondents (56%) answered : they "sometimes" watch weather bulletins on the Libyan national TV channel in Tripoli, but only 25% watch it "daily", and 19% don't watch it at all. These answers could be acceptable because approximately a quarter of the sample is interested in weather information and watching it every day. Besides, the majority watch TV weather on some occasions depending upon certain weather conditions or events and personal circumstances.

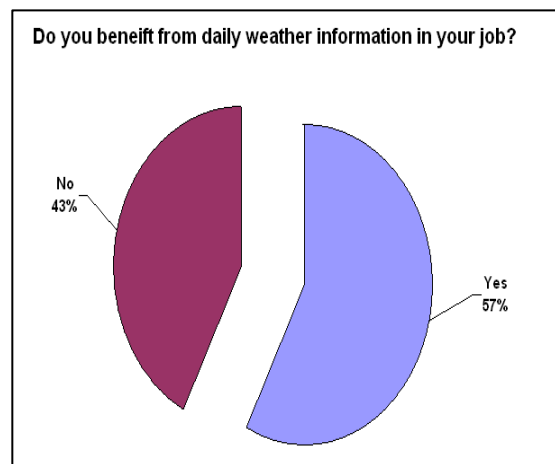


*Figure 2: Watching TV weather in Tripoli, Libya*

However, there is still a considerable percentage of the sample (19%) that the LNMC

should investigate why they are not interested in TV weather services. The answer to this question may require the LNMC to improve its delivered services to encourage people to watch it.

Applying weather information and using it for work is regarded in this research by 57% of the respondents as shown in Figure 3. However, 43% don't use weather information in their work at all. This may raise a question about what type of weather forecasts or information people may need to apply to their work in Tripoli. To know this, job type should be added to the survey questions in the future.



*Figure 3: Daily weather information benefit in job.*

The respondents' overall satisfaction and perception of the TV weather forecasts' accuracy was 24%, while most of them 70% believe that weather forecasts are "acceptable", but 6% said it is "bad". The current project of updating the Libyan meteorological services and the installation of METEFACTORY®, which contains the latest generation of the TVMET system, will improve the accuracy and quality of presenting weather on TV, and will have a positive impact on the public's overall satisfaction and perception of this service (MFI, 2006).

Understanding the scientific content and description of weather charts, as shown in Figure 4, was agreed by 62% of respondents, while 38% faced some difficulties to fully understand all the terminology or jargon words in the presenter's talk. Furthermore, most respondents 81% said they understand weather graphics and the symbols which appear on the weather charts. Certainly, this is a good indication that the TV viewers have learnt and gained some detailed weather knowledge and meteorological terms.

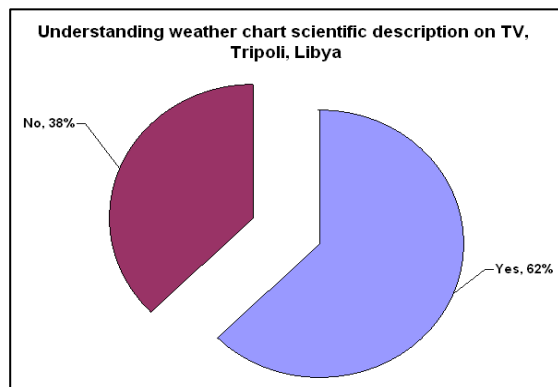


Figure 4. Understanding weather scientific description.

Regarding the times of broadcasting weather on TV, 70% of respondents agreed that it is good and convenient for them, but 26% suggested extending its time limit, which will offer them more weather information and details. Moreover, 63% requested broadcasting weather bulletins on TV more than once a day.

In addition to these suggestions, most respondents (89%) would like to attend short introductory courses about weather, climate and meteorology in general, but 83% of them want these courses to be free of charge. This indicates that people in Tripoli want to learn about weather, but don't want to pay for that.

Many respondents answered that they make their personal decisions on dress, food or type of drink and going out, based or influenced by the weather forecast from the TV weather bulletin. 28% answered they choose what to wear after they watch the weather bulletin, and more than half 53% answered "sometimes" when the weather conditions are unstable, but 19% don't care about the weather when they dress. The same for food, 42% of the respondents answered that the weather affects their food type when they choose to eat or drink, but 34% are not and 25% sometimes choose a certain type of food according to hot or cold weather conditions.

Figure 5. represents the TV weather impact on going out in severe weather like heavy rain, strong winds or high temperature. 40% of respondents take the weather into their consideration when deciding to go out of their homes, while another 40% "sometimes" give weather that priority, but 20% go out whatever the weather.

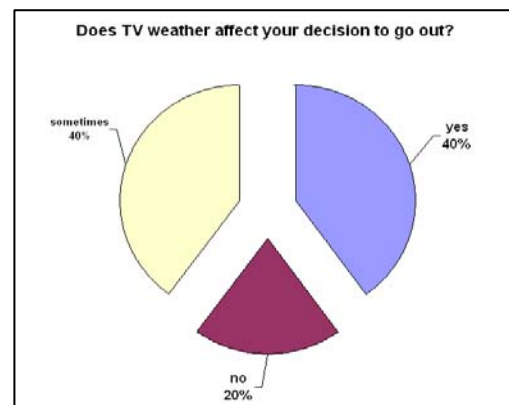


Figure 5. TV weather and decision to go out.

Although weather culture is recognized by nature and practice, some answers were very interesting. It has given a good indication on how weather information is applied in daily personal life, such as choosing clothes, going out, or the type of food or drink, depends upon weather conditions. Furthermore, it showed remarkable signs that

understanding the weather has become one of the people's interests in Tripoli.

#### **CONCLUSION:**

Credibility needs time to be built and grow. However, it is very essential in the relationship between the NMS and the public regarding the delivery and use of weather information. This oriental scientific paper has presented a considerable feedback and highlighted many points on presenting TV weather and how in general people in Tripoli understand and respond to the service. The statistics of this survey have indicated how important it is for the LNMC to know the level of the public's satisfaction and the usefulness of the weather information delivered to them. Remarks and notes ascertained from this study may assist in future plans for producing new forms or types of weather products, taking into consideration the needs of the public. Furthermore, this work decreases the feedback gap between the three weather components of effectiveness in producing, transmitting and applying weather in Libya, which are: the LNMC, the media sector and the public, to begin discussions to evaluate the TV weather service presented on Libyan national TV for the purpose of improving its accuracy, time delivery and understanding.

This research hasn't covered or investigated the performance, skills and language of the Libyan TV weather presenters which certainly it strongly contribute to the weather message delivery, because the presenter is very responsible for the selection of weather graphical illustrations and the preparation of the verbal weather story to be delivered to the TV viewers. Therefore, if these topics will be added to the next survey, it will show how the presenter's skills can contribute to understanding TV weather, and give some guidance to the LNMC in setting training programs in this regard.

Moreover, expanding this survey to other Libyan cities will highlight additional important and significant remarks on this subject to be used by the LNMC in future plans. These may help to improve the weather services and develop their techniques. Furthermore, it will be the best guarantee to enable people to benefit and respond to weather information.

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