

THE NEED OF WEATHER FORECASTS ADAPTED FOR RECREATION IN LITHUANIA

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ABSTRACT In 2005-2006 a survey was carried out in Lithuania on the need of weather forecasts for holiday planning and recreational activities. The survey also determined comfortable weather conditions and those having no negative influence on people. Moreover, it found that the existing weather forecasts are sufficiently informative.

For the purpose of obtaining more detailed data and carrying out qualitative analysis, 500 respondents were surveyed in all regions of Lithuania. Respondents were chosen based on their age, education, work, place of residence, etc.

Most of the respondents pointed out that one day weather forecasts were insufficient for their planning of recreation. 50 per cent of respondents needed a forecast for two days and 40 per cent of respondents needed the whole week's weather forecast. The need for weather forecasts differs by season. It was not so important in winter, while in spring or in autumn it was important to 30 per cent of all respondents. In summer, weather forecasts were very important to 62-65 per cent of the respondents.

The most comfortable weather for Lithuanians was clear and slightly windy weather with a temperature of 23-25 °C.

KEYWORDS: *Weather forecasts, survey, recreation, comfortable weather, Lithuania*

INTRODUCTION

When beginning to publish new specialized weather forecasts or improving the existing ones, it is very important to find out the needs of their users. In order to improve the format of presentation of weather forecasts and to supplement them with biometeorological forecasts, in 2005-2006 a popular survey was carried out in Lithuania requesting respondents to assess the presented forecasts and to answer additional questions about their sensitivity to weather conditions, their perception of comfortable weather conditions, etc.

The Lithuanian Hydrometeorological Service currently provides its customers with regular weather forecasts, including maximum and minimum air temperature, precipitation, general cloudiness, wind and anticipated dangerous phenomena for 5 days in advance. The biometeorological forecast only includes an ultraviolet radiation index forecast.

Therefore, it was very important to find out whether people were satisfied with the provided information, what basic parameters should be published and which additional biometeorological forecasts should be included.

METHODS

The Survey was carried out in different regions of Lithuania taking into consideration the number of local inhabitants, their age, education, type of employment, residential area, etc. In total 500 inhabitants were surveyed.

The Questionnaire comprised three main groups of questions: use of weather information, perception of comfortable weather and individual sensitivity to weather conditions. Questions included in the latter part were compiled based on similar research carried out in Germany and Canada (Mackensen et al., 2005).

RESULTS

Having analysed responses regarding comfortable weather conditions it was established that as many as 58 % of responders considered to be comfortable on summer days with a maximum air temperature of 23–26 °C, with the most comfortable range being between 19 and 22 °C. An interval between 27–30 °C was selected by merely 14 % of the respondents. Comfortable summer nighttime temperature were considered to be either 13–16 °C or 17–20°C, according to two equal groups of 40 % of all interviewed Lithuanians.

The most favourable weather was considered to be clear or slightly cloudy with light to moderate winds, at night as well as in daytime. Remaining wind speed categories were considered to be uncomfortable.

In the opinion of the most respondents (42 %), comfortable wintertime conditions were characterised by clear and slightly windy weather with air temperature varying between -5 and -9 °C.

Respondents were also inquired about comfortable water temperature for swimming. The vast majority (54 %) went swimming when the water temperature reached 18 degrees, while 20-degrees warm water was satisfactory for 79 %.

In order to learn more about people’s satisfaction with current forecasts, they were asked about the forecasts’ informativity and concordance with common expectations.

Only a small part of all respondents stated total dissatisfaction with the presented forecasts. “Occasional” satisfaction was expressed by as many as 62–67 % of respondents, thus adding up to the picture of Lithuanians’ reservations with regards to the forecasts and their appropriateness. However, 33–35 % of respondents were totally satisfied with the presented information.

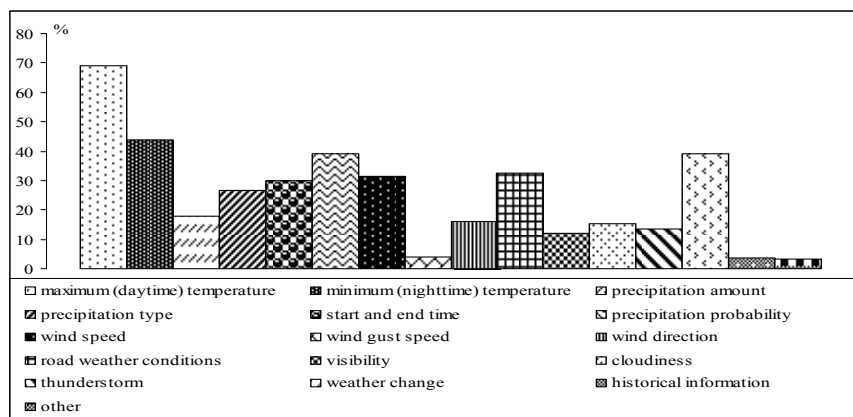


Figure 1: The most wanted information in the weather forecast

Most of the respondents (69 %) considered the maximum daytime temperature to have prevailing influence on their activities and state of health. The minimal nighttime temperature was considered to be fairly important daily information for Lithuanians, This was also true for precipitation probability, road meteorological conditions and expected weather change (about 38 %). All remaining meteorological elements were considered to be less important (requested by 15–20 % of respondents). Respondents found that wind speed (unless a storm was forecast) and historical information were less important.

Most people would like to hear information on the existing air pollution in the weather forecasts. Such forecasts have indeed been published, but not by the Lithuanian Hydrometeorological Service.

More than 50 % of the respondents would like to obtain some information about the weather’s influence on their state of health (Fig. 2). Information about the negative influence of weather on human health was more often requested by females than males.

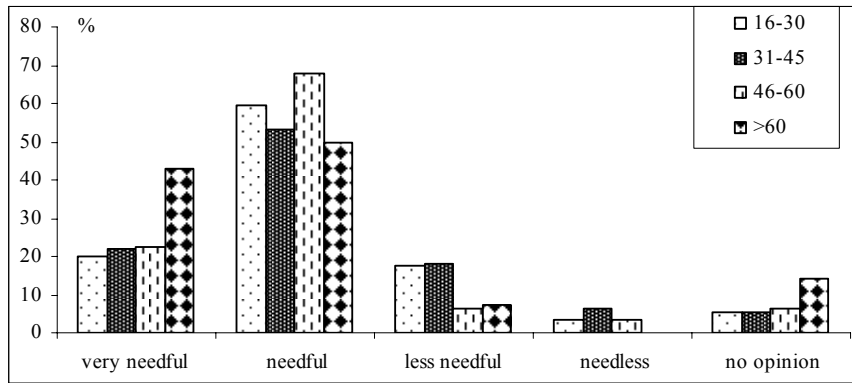


Figure 2: Need for information on weather conditions unfavourable for human health, by different age groups

Every second Lithuanian inhabitant stated that weather influenced human health. Weather conditions had considerable influence on health conditions for every fifth inhabitant with the most vulnerable being 60 years of age and older.

For most respondents, weather changes were associated with increasing lethargy, limited activities, fatigue, and increasing joint pain. Frequent were also headache, nervousness or irritability. Moist weather was considered to have the most adverse affect on human health. People were more sensitive to changing rather than persistent weather with the most influential being strong variations in temperature.

In the opinion of the vast majority of respondents, daily weather forecasts were not sufficient for planning their weekends or short trips. On the contrary, two-day forecasts were satisfactory for the vast majority of respondents.

Analysing differences between males and females, it was noted that the existing daily forecasts were twice more important for males than for females, however, weekly weather outlooks were more noteworthy for females. Meanwhile two-day forecasts were equally needful for males and females. However, comparing differences between various age groups of respondents, it was noticed that young Lithuanian considered two-day forecasts to be the most important –for at least 55 % of respondents. Respondents of 31–45 years of age requested weekly weather outlooks. Existing daily forecasts were the most important for elderly respondents.

Wintertime weather forecasts were absolutely unimportant for the vast majority of the respondents, because of underdeveloped winter tourism in Lithuania and the dominating importance of summer holidays. Therefore, summertime forecasts were considered most

important for as many as 62–65 % of respondents. Forecasts in autumn and spring were important for about 20–30 % of respondents.

CONCLUSIONS

Popular surveys are one of the main sources of information on the matter in question. In Lithuania, it was one of the first surveys of its kind, especially when considering the popular opinion about the weather forecasts, comfortable weather conditions and weather sensitivity. The results obtained are useful in improving the presentations of the weather forecasts and inclusion of new biometeorological forecasts.

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