

# USING SURVEYS TO EVALUATE SERVICES

PWS-SG 4

**This summary guide is for National Meteorological and Hydrological Services (NMHSs) staff who are required to measure the effectiveness of their services by undertaking surveys of the public. It provides advice on how to conduct surveys in order to discover the public perception and opinion of the services that NMHSs provide.**



## Why survey the public?

### A Survey:

**Improves the forecast service:** The public are a very valuable source of information about the quality of your services. They can tell you directly how well your forecasts and warnings are meeting their requirements. Using surveys is a great way to gain knowledge about how to improve the usefulness and effectiveness of what you do. They are also a good way of testing out new ideas.

**Helps the organization:** NMHSs that provide useful, needs-focused services have a positive public profile. Having a dialogue with the community about what they need is a very effective strategy for gaining credibility and support from the public, key partner agencies and the government.

**Benefits the user:** Weather forecasts and warnings only have value when they meet user needs. Public surveys are powerful tools for measuring whether these needs are being met. They can also provide important information about how your services are being used and whether there are opportunities for doing things differently and better.

## How to develop a survey questionnaire

Decide what you want to find out: The first step in developing a questionnaire is to decide what you want to find out. Weather services surveys can provide information on the following questions:

- How accurate do people think warnings and forecasts are?

- Are people receiving warnings and forecasts on time?
- How do people get their forecast and warning information?
- Do people understand what the forecasts and warnings mean?
- What are the most important weather-related decisions people make?
- In which weather elements are people most interested?
- Which services are most useful and which are rarely used?
- What new services would people like?

**Prepare your survey carefully:** Think about how long you want the survey to be. A shorter survey will attract more responses. Questions should be clear, unambiguous and carefully focused. If you want to use a rating scale, consider one that has an even number of ratings (e.g., 4-point scale) so that respondents are forced to lean one way or the other. Multiple-choice answers are a good way to get consistent feedback. Include a 'comments section' at the end to let people add additional feedback – open questions can sometimes be the best way to get new ideas and unexpected opinions. Test your survey beforehand, to make sure the questions make sense.

**Think about your target audience:** Who do you want to survey? Questions for specialized users can be a bit more sophisticated than those for the general public.

Think about which group of users you know the least about – these would make a good target for your first survey. Include some questions at the start to gather information on the respondent (e.g., age, occupation, education level).

### How to conduct a survey

**Choose your methods:** Different audiences may require different techniques – the general public could be surveyed by telephone, or by filling in a questionnaire at a major event or public gathering. Farmers may be best approached during agricultural fairs. Surveys conducted in partnership with key agencies can be very effective since these agencies often have good connections with your potential audience. This is a good way of sharing costs.

**Decide carefully about when to conduct the survey:** A one-off survey can be very useful for discovering particular things, especially after a particular weather event. Regular surveys, e.g., seasonal and annual, can be extremely useful for finding out trends (are we getting better?) and for learning about how your services are used depending on the time of year. Think carefully about the size of your sample. Small surveys can be very effective when targeted appropriately. Surveys do not need to be large to obtain statistically significant results.

**Analyze the results:** Look carefully at the results to see if they tell you what you want to know. Are there any surprises? Are people satisfied with the services you

are providing? Are there areas for improvement? How well do they understand your products – perhaps you need to do more public education?

**Use the results to make a difference:** The most important step of all is to use the feedback you have gathered to improve your services. Do not let the survey results sit in a drawer. Share them with your staff to motivate them. Share them with the public themselves, to help manage expectations and to demonstrate your commitment to them.

Surveys can change how NMHSs do their business:

- Perhaps some improved methods for forecasting rain need to be developed;
- If television or radio is the most popular way for receiving forecasts, then work on ensuring you have an effective relationship with the relevant media;
- If most people listen to the forecast in a particular time of the day, then make sure to issue your forecasts at that time in order to capture a large audience;
- If people do not understand the meaning of the forecast, simplify the language, or conduct some public education; and,
- Has the investment in new technology and research led to users being more satisfied? If not, think why so. Perhaps you need to re-prioritize your resources.

Note: This summary guide is based on the “PWS Guidelines on Performance Assessment of Public Weather Services” (WMO/TD No. 1023); and the “Supplementary Guidelines on Performance Assessment of Public Weather Services” (WMO/TD No. 1103) - Available at [www.wmo.int/pws](http://www.wmo.int/pws)



For more information, please contact:

## World Meteorological Organization

Ms Haleh Kootval, Chief, Public Weather Services Division

Tel.: +41 (0) 22 730 83 33 – Fax: +41 (0) 22 730 81 28 – E-mail: [HKootval@wmo.int](mailto:HKootval@wmo.int)

7 bis, avenue de la Paix – P.O. Box 2300 – CH-1211 Geneva 2 – Switzerland

[www.wmo.int/pws](http://www.wmo.int/pws)