

Social protection in the UK: Cold weather payments scheme

This case study is an example of how observed and forecast temperature information is integrated into a UK social protection scheme. The case study aims to inform the development of shock-responsive social protection in other countries. It has been written as part of the [ASPIRE \(Adaptive Social Protection: Information for enhanced REsilience\) project](#), under the Weather and Climate Information Services for Africa (WISER) programme funded by the UK's Department for International Development (DFID).

Purpose of the cold weather payments scheme: The scheme was set up in 1988 to provide vulnerable individuals in the UK (excluding Northern Ireland) with financial support during periods of cold weather.

Who is eligible?

A person can qualify for a cold weather payment if they are in receipt of:

- Pension Credit (people aged over 65 on a low income).
- Income support (those on low income), Jobseeker's allowance (unemployed) or income-related Employment and Support allowance (limited capability to work), who are either disabled or they are responsible for a disabled child or child under the age of 5.

How the scheme works?

- The scheme runs from 1 November to 31 March each year.
- The Met Office has assigned each eligible household to one of **94 weather stations** (see map in appendix 1) that is most representative of their climate, accounting for topography and whether the surrounding areas are urban or rural. These stations are maintained by the Met Office.
- If a cold weather payment is triggered at a weather station, the eligible households receive an **automatic payment of £25** from the UK's Social Fund, coordinated by the **Department of Work and Pensions (DWP)**.
- Both forecast and observed temperatures for each weather station are used to determine who receives a payment. By using deterministic **temperature forecasts** from the Met Office, households can receive the payment **ahead of the cold weather** and be reassured that they have the additional money to afford extra heating.

The payment process



Each day, observed and forecast temperature data are taken from 94 Met Office weather stations in the UK

The Department for Work and Pensions identify which, if any, households qualify for a payment

The cold weather payments are sent to each qualifying household

Criteria for triggering a cold weather payment:

The average daily temperature is observed as, or forecast to be, 0°C or below on average for seven consecutive days.

Table 1: A summary of when a payment would be issued based on both the forecast and observed temperature

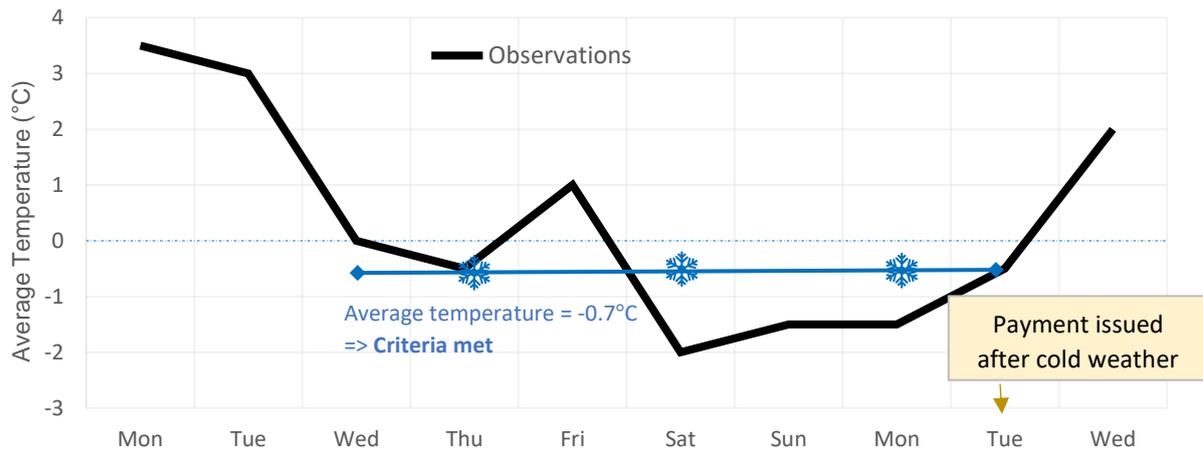
	Forecast temperature below 0°C	Forecast temperature above 0°C
Observed temperature below 0°C	Accurate forecast Payment issued <i>ahead</i> of cold weather	Colder than forecast Payment issued <i>after</i> cold weather
Observed temperature above 0°C	Warmer than forecast Payment issued, but criteria not met by observations	Accurate forecast No payment issued

Table 2: A summary of when a payment would be issued based on both the forecast and observed temperature

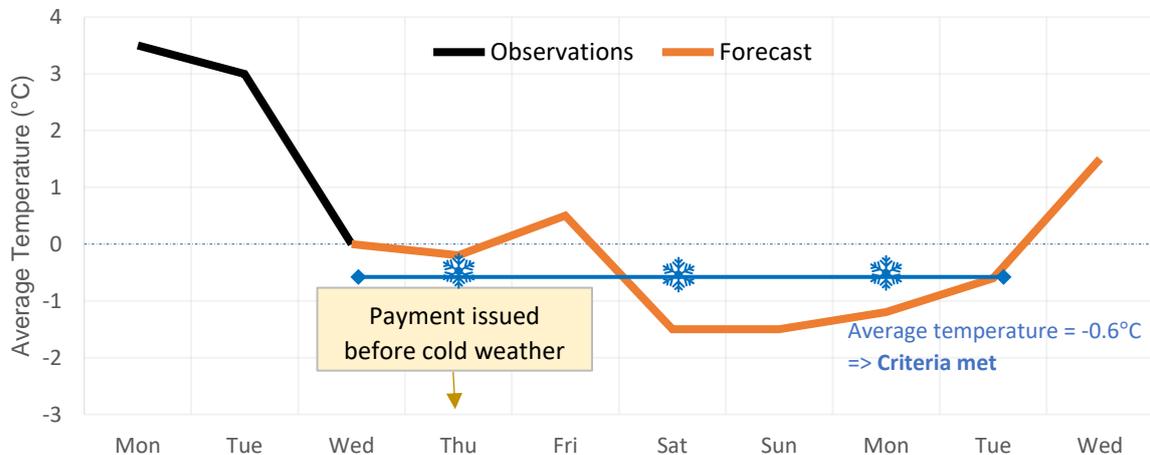
Examples

Here are two examples to show when the payment would be issued in relation to the cold weather period, based on observed (upper graph) and forecast (lower graph) temperatures.

Example 1: Payment issued based on observed temperatures only



Example 2: Payment issued based on forecast temperatures



Considerations

1. Difficult to predict total costs ahead of winter

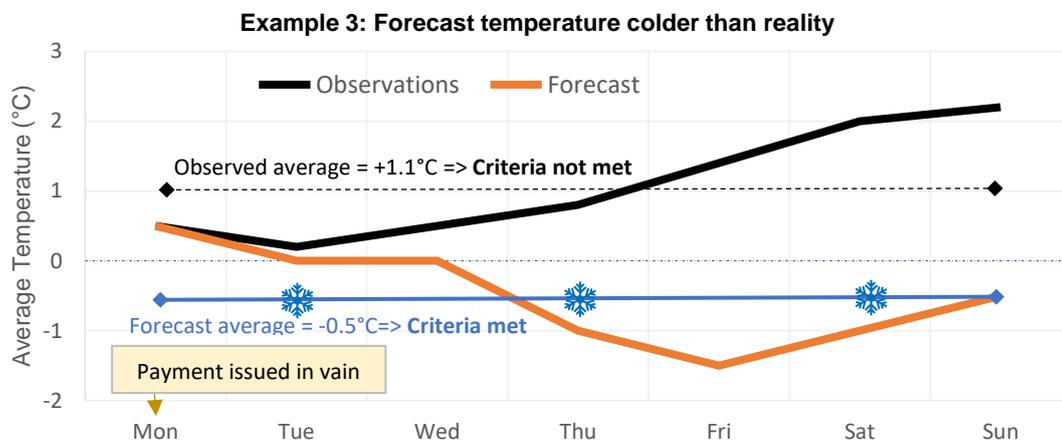
- Year-to-year weather variability mean some seasons will have considerably larger pay-outs than others (see appendix 2).
- Population density varies considerably across the UK and if highly populated areas, such as London, have a cold spell this can result in substantial costs.

2. Weather stations may not accurately represent the climate of every household

Not every household has a representative station for its local climatology, and so may be getting under- or over-paid. For example, a station located near the coast will typically report warmer conditions than inland, and if an inland household is assigned to that station it may not receive sufficiently frequent payments.

3. Overpaying when the forecast is too cold (i.e. payments in vain)

Example 3 shows how a payment could be triggered by a forecast before expected cold weather, while in reality conditions remain warmer and above the 0°C threshold.



Next steps for the scheme

To improve representations of household climates, and ensure payments are only triggered when appropriate, gridded observed and forecast temperature data (with high spatial detail) could be used instead of weather station data. Each household would be assigned a small grid-box representing their climate more accurately, reducing risks of missed payments or payments in vain.

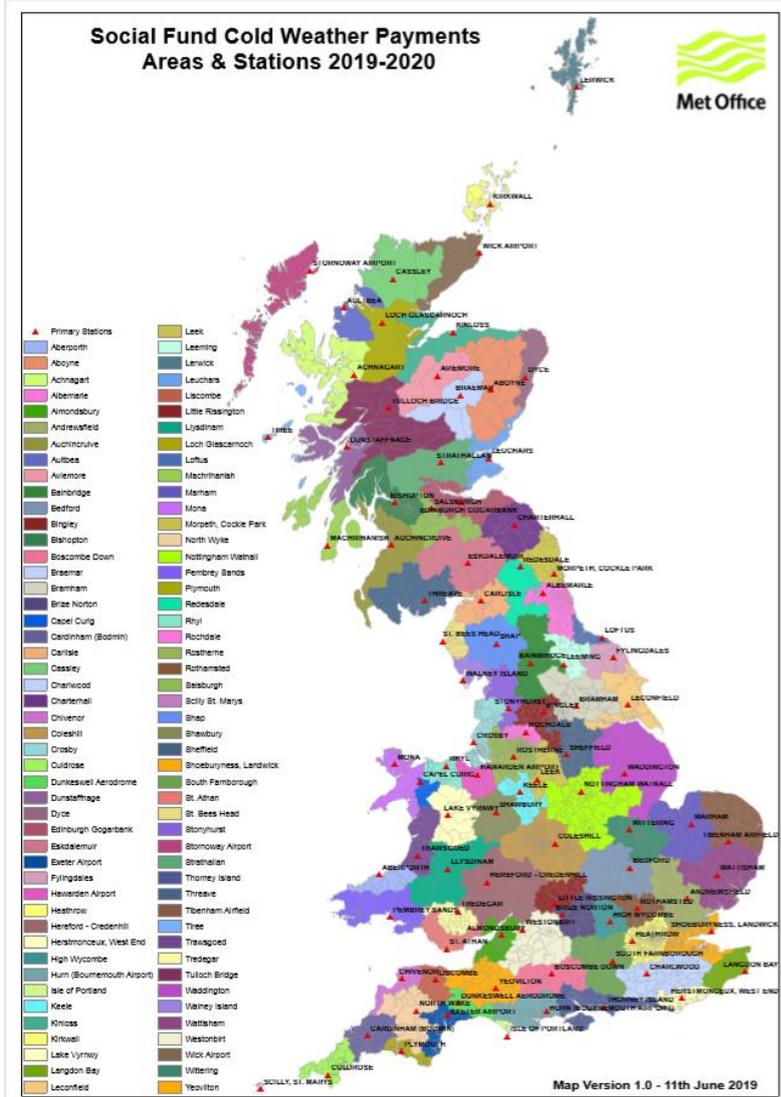
Can seasonal forecasts be used in these schemes?

Seasonal forecasts are predictions of the average weather over a period of 3 to 6-months, made several months in advance. They have potential to support vulnerable communities in adaptive social protection schemes by triggering payments or actions in advance, or during, a climate shock (e.g. drought or period of high rainfall). Due to the longer time horizon of predictions, seasonal forecasts are often less skilful than weather forecasts, bringing a higher risk of missed payments or making payments in vain, and the forecasts are only reliable at large spatial scales (e.g. size of a country). Furthermore, seasonal forecasts are expressed as probabilities, so actions or payments would be triggered using a probabilistic threshold (e.g. likelihood of very hot weather). This would make schemes more complicated than the case study presented here. However, there is potential to make use of long-term observations and forecasts to anticipate climate shocks well in advance and enable adaptive social protection schemes to scale up. This requires thorough understanding of weather impacts and decisions on longer time-scales, and well thought out payment criteria and systems that accommodate forecasts on the likelihood of climate shocks occurring.

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Appendix

A.1: Distributions of stations across the UK



A.2: Variability in cold weather payments in recent winter season

