



Ministry for the  
**Environment**  
*Manatū Mō Te Taiao*

## Trends in PED, 1972/3–2015/6

### Title

Trends in PED, 1972/3–2015/6

### Publisher

New Zealand's Environment Reporting Series: The Ministry for the Environment and Statistics  
New Zealand

### Description

Trends in potential evapotranspiration deficit (PED), 1972–2016. Soil moisture is vital for plant growth. When plants cannot access the water they need, growth is reduced, affecting crops and food for livestock, and native biodiversity. Over a sustained period, a drought can have significant social and economic costs, particularly for rural communities. Potential evapotranspiration deficit (PED) can be thought of as a drought index. It is the difference between how much water could potentially be lost from the soil through evapotranspiration and how much is actually available. When PED is high, plants do not have the full amount of water available they need for growth. PED is measured in growing seasons (the 12 months from 1 July to 30 June of the following year). Data covers each of the growing seasons from 1 July 1972, with the last growing season in the series ending on 30 June 2016. Trend direction was assessed using the Theil-Sen estimator and the Two One-Sided Test (TOST) for equivalence at the 95% confidence level. More information on this dataset and how it relates to our environmental reporting indicators and topics can be found in the attached data quality pdf.

### Source

NIWA

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### Coverage

1972–2016; national

### Identifier

AC17/056

### Type

Dataset

### Language

eng-nz

### Subject

climate, precipitation, extreme weather, Environmental reporting series: Our atmosphere and climate 2017