How much rain can you harvest in Sintra, Portugal?

Could it help prevent wildfire damage?



Let's look at the last 30 years of data for Sintra to see what the driest and wettest years were. We might be surprised by what we find.

Most homes, even in arid environments, do not put their rainwater to productive use. They let it run off the property, straight out to the ocean.

There is an opportunity to integrate rainwater harvesting into the design of new homes in Sintra.



The driest year in Sintra in the last 30 years was:



354 mm

(13.94 inches)

The wettest year in Sintra in the last 30 years was:



841 mm

(33.11 inches)

This translates to:

31,860 litres

(8,384 gallons) of harvest / 1000 sq. feet of roof in the driest year

75,690 litres

(19,918 gallons) of harvest / 1000 sq. feet of roof in the wettest year

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The average home size in Sintra is:



3,703 sq. feet

This translates to:

11,7977.58 litres 280,280 litres

(31,047 gallons) in the driest year

(73,758 gallons) in the wettest year

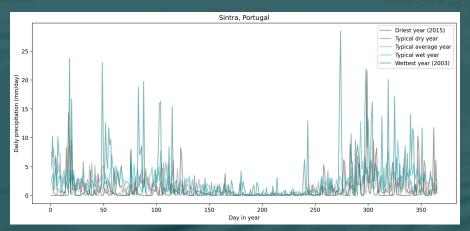


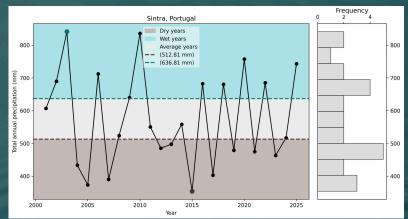
If we combined rainwater harvesting with a property-wide greywater reuse strategy, fire-resistant landscaping and fire-resistant building materials, we could bring the fire risk down substantially.

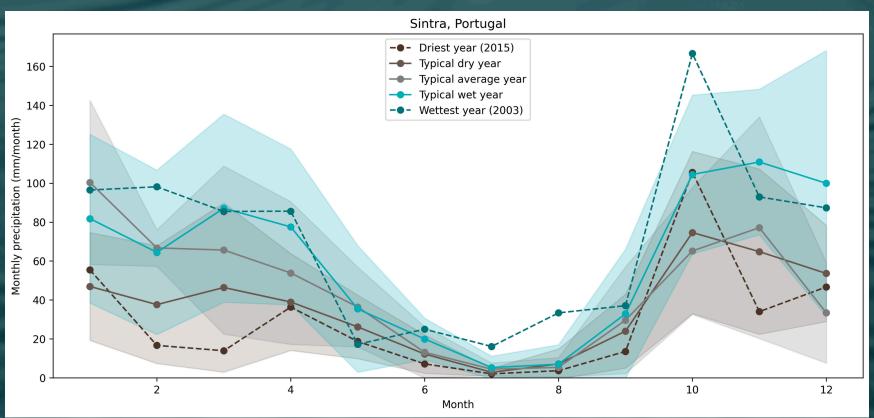
Greywater could be used to keep the fire-resistant landscape green and non-flammable year-round, and the rainwater could be stored for wildfire season as a backup measure.



Below are some charts the 5th World Data team put together to help understand the opportunity.









If you are in Sintra and you are a building professional who wants to integrate these systems into your designs, please reach out at www.5thworld.com/contact/

