



Correction

## Correction: Tzanakakis et al. Challenges and Opportunities for Sustainable Management of Water Resources in the Island of Crete, Greece. *Water* 2020, 12, 1538

V. A. Tzanakakis <sup>1,2,\*</sup>, A. N. Angelakis <sup>3,4</sup>, N. V. Paranychianakis <sup>5</sup>, Y. G. Dialynas <sup>6</sup> and G. Tchobanoglous <sup>7</sup>

- Hellenic Agricultural Organization Demeter (HAO-Demeter), Soil and Water Resources Institute, 57001 Thessaloniki, Greece
- Department of Agriculture, School of Agricultural Science, Hellenic Mediterranean University, 71410 Iraklion, Greece
- <sup>3</sup> HAO-Demeter, Agricultural Research Institution of Crete, 71300 Iraklion, Greece; angelak@edeya.gr
- <sup>4</sup> Union of Water Supply and Sewerage Enterprises, 41222 Larissa, Greece
- School of Environmental Engineering, Technical University of Crete, 73100 Chania, Greece; niko.paranychianakis@enveng.tuc.gr
- Department of Civil and Environmental Engineering, University of Cyprus, Nicosia 1678, Cyprus; ydialy01@ucy.ac.cy
- Department of Civil and Environmental Engineering, University of Davis, Davis, CA 95616, USA; gtchobanoglous@ucdavis.edu
- \* Correspondence: vtzanakakis@hmu.gr



Citation: Tzanakakis, V.A.;
Angelakis, A.N.; Paranychianakis,
N.V.; Dialynas, Y.G.; Tchobanoglous,
G. Correction: Tzanakakis et al.
Challenges and Opportunities for
Sustainable Management of Water
Resources in the Island of Crete,
Greece. Water 2020, 12, 1538. Water
2022, 14, 1024. https://doi.org/
10.3390/w14071024

Received: 18 February 2022 Accepted: 1 March 2022 Published: 24 March 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

The authors wish to make the following corrections to the published paper [1], there were mistakes as follows:

1. In the abstract, the text in 3rd and 4th lines:

"Under average meteorological conditions, the island is water-sufficient (969 mm precipitation; theoretical water potential 3284 hm<sup>3</sup>; and total water use 610 hm<sup>3</sup>)" should be corrected as "Under average meteorological conditions, the island is water-sufficient (967 mm precipitation; theoretical water potential 3425.89 hm<sup>3</sup>; and total water use 610 hm<sup>3</sup>)".

2. In Table 1, the data of Normal year should be corrected as follows:

**Table 1.** Average annual estimations of the hydrologic cycle components in Crete on normal, wet, and dry years. Source: [14].

Hydrologic Conditions	Unit	Precipitation	Actual ET (57.50%)	Run-Off (15.00%)	Infiltration (27.50%)
Normal year	mm hm³	967 8060.91	4635.02	1209.14	2216.75
Wet year	mm hm³	1244 10,369.98	5962.74	1555.50	2851.74
Dry year	mm hm³	610 5084.96	2923.85	762.75	1398.36
Year 2017–2018	mm hm³	480 4001.28	2300.74	600.19	1100.35

Data of 40 years from 90 Meteorological stations.

3. The General hydrological data (annual average values of a normal year) for the river basin districts (RBDs) of the island of Crete have some mistakes, and the relevant description and table should be corrected as following:

In "Water Availability and Climate Variability Impacts" Section 4.2:

Water 2022, 14, 1024 2 of 2

"The average yearly precipitation on Crete (969 mm) corresponds to approximately 6109 hm³ [55] (Table 3). However, less than 36% of the precipitation is stored in the soil or percolates to deeper horizons. By contrast, ET and runoff to the sea account for 73% and 19% of the precipitation, respectively. As a result, the theoretical total water reserves are estimated to be 3284.17 hm³/year (Table 3), accounting for 54% of precipitation, without considering the potential contribution of non-conventional water recourses." should be written as "The average yearly precipitation on Crete (967 mm) corresponds to approximately 8060.91 hm³ [55] (Table 3). However, less than 27.50% of the precipitation is stored in the soil or percolates to deeper horizons. By contrast, ET and surface runoff to the sea account for 72.50% of the precipitation. As a result, the theoretical total water potential is estimated to be 3425.89 hm³/year (Table 3), accounting for 42.50% of precipitation, without considering the potential contribution of non-conventional water recourses."

The Table 3 should be changed to the following table:

**Table 3.** General hydrological data (annual average values of a normal year) for the river basin districts (RBDs) of the island of Crete.

Unit	RBD of Crete	
km <sup>2</sup>	8336.00	
mm	967.00	
hm <sup>3</sup>	8060.91	
hm <sup>3</sup>	4635.02	
hm <sup>3</sup>	2216.75	
$hm^3$	1209.14	
$hm^3$	3425.89	
	km <sup>2</sup> mm hm <sup>3</sup> hm <sup>3</sup> hm <sup>3</sup>	

## 4. In "Groundwater" Section 4.4.2:

"The annual underground water supply in Crete is estimated to be  $2172.31 \times 10^6$  m³/year (Table 8) of which a significant portion is brackish" should be "The annual underground water supply in Crete is estimated to be  $2216.75 \times 10^6$  m³/year (Table 8) of which a significant portion is brackish".

5. The data of water potential of major hydrogeological units of Crete have some mistakes and Table 8 should be changed to:

**Table 8.** Water potential of major hydrogeological units of Crete (table data are based on estimates of over 91 individual hydrogeological units throughout Crete). Source: [14,15].

Hydrogeological Formations	Area (km²)	Average Annual Precipitation (mm)	Volume of Precipitation (hm <sup>3</sup> /Year)	Average Percolation (%)	Volume of Percolated Water (hm³/Year)
Karstic	3333.07	1300	4332.99	34.85	1510.24
Neogenic	2950.92	693	2044.99	23.75	485.66
Others	2052.01	780	1600.57	11.02	176.41
Total/Average	8336.00	967	8060.91	27.50	2216.75

We apologize for these errors and state that the scientific conclusions are unaffected. The original article has been updated.

## Reference

 Tzanakakis, V.A.; Angelakis, A.N.; Paranychianakis, N.V.; Dialynas, Y.G.; Tchobanoglous, G. Challenges and Opportunities for Sustainable Management of Water Resources in the Island of Crete, Greece. Water 2020, 12, 1538. [CrossRef]