

دراسة تأثير الأنواء الجوية على مياه شط العرب

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Abstract

The strength of the interaction between the elements of weather and climate, and sea water surfaces or shallow water surfaces constitutes naval and air phenomena constitute. The water of Shatt al-Arab, like the water in the seas and oceans affected qualitatively and quantitatively by the elements of weather and climate. Wind plays a large role in the rise of water surface , generation of waves, increase the amount of evaporation, generation of sea currents, change the concentration of salt in sea water in addition to other effects of weather elements on water. Therefore, in our work we studied some phenomena , including the amount of water evaporation, speed of the current, wave heights , wave energy and the concentration of salts. Results show that the elements of weather and climate have a clear impact on the water of Shatt al-Arab

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48° 35'

99° 57'

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Tide

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(Beaufort Wind Scale)

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$$E = \frac{1}{8}(\rho g H^2) \text{ ----- (1)}$$

(J/m²) = E

(kg/m³) = ρ

(m/sec²) = g

(m) = H

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[1]



-1

-3

-2

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$$E = \rho C_D U (q_0 - q) \dots\dots\dots(2)$$

= E

(/)

= ρ

(/)

= U

(drag coefficient)

= C_D

(/)

= q

= q₀

$$q_0 = 0.622 \frac{e_0}{p} \quad , \quad q = 0.622 \frac{e}{p}$$

= p

= e₀

= e

[] C_D

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$$C_D = (0.75 + 0.067U_{10})10^{-3}$$

U_{10}

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(m² / .)

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(m²/)

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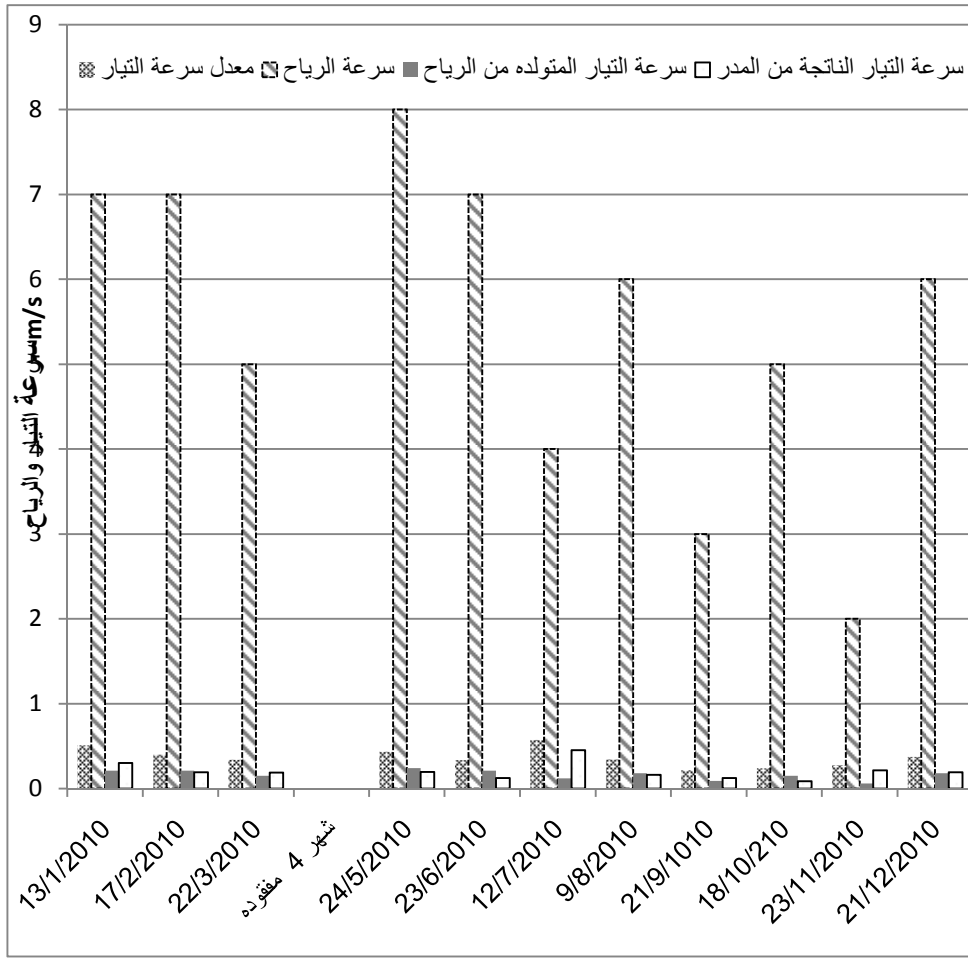
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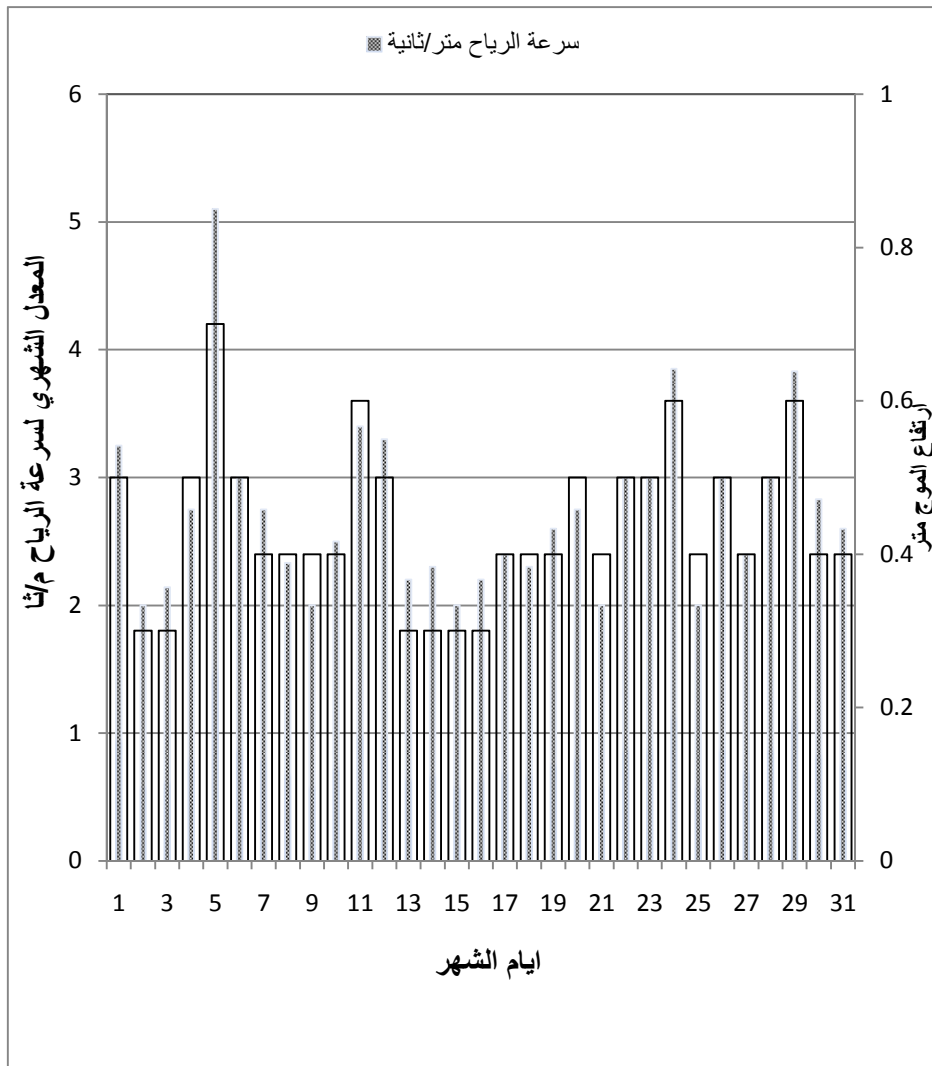
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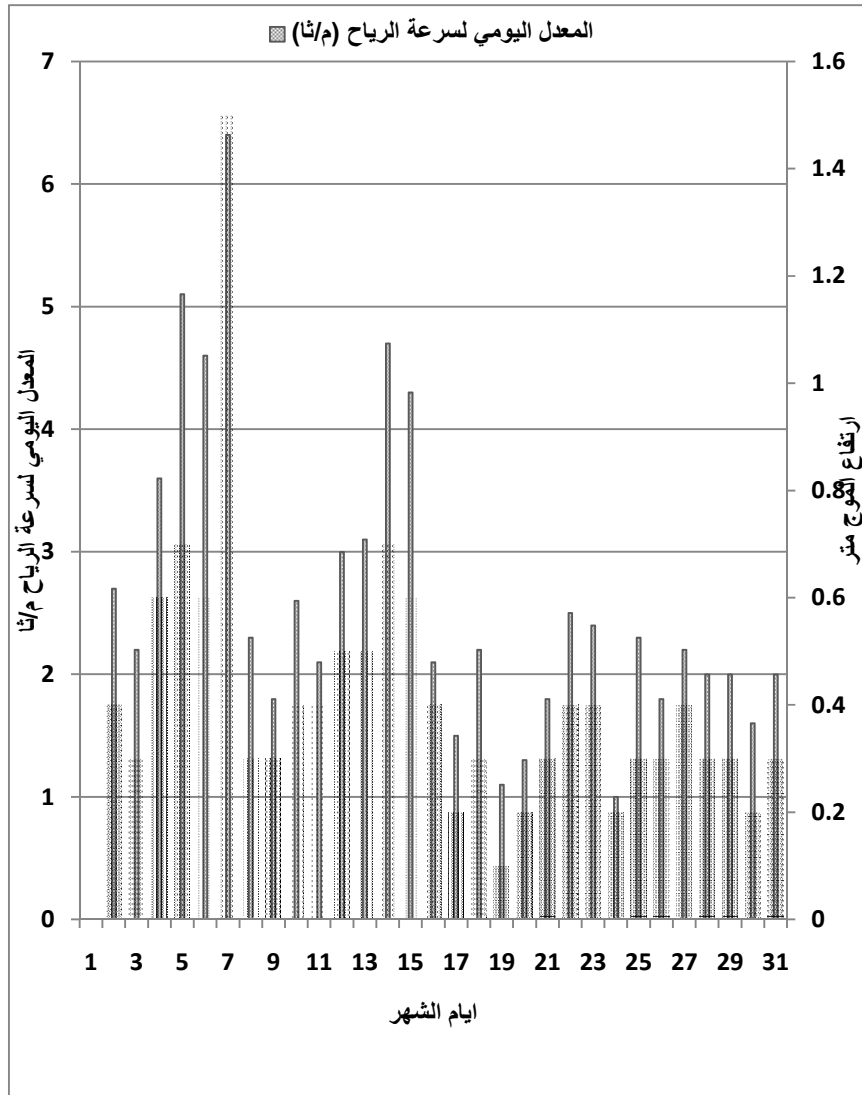
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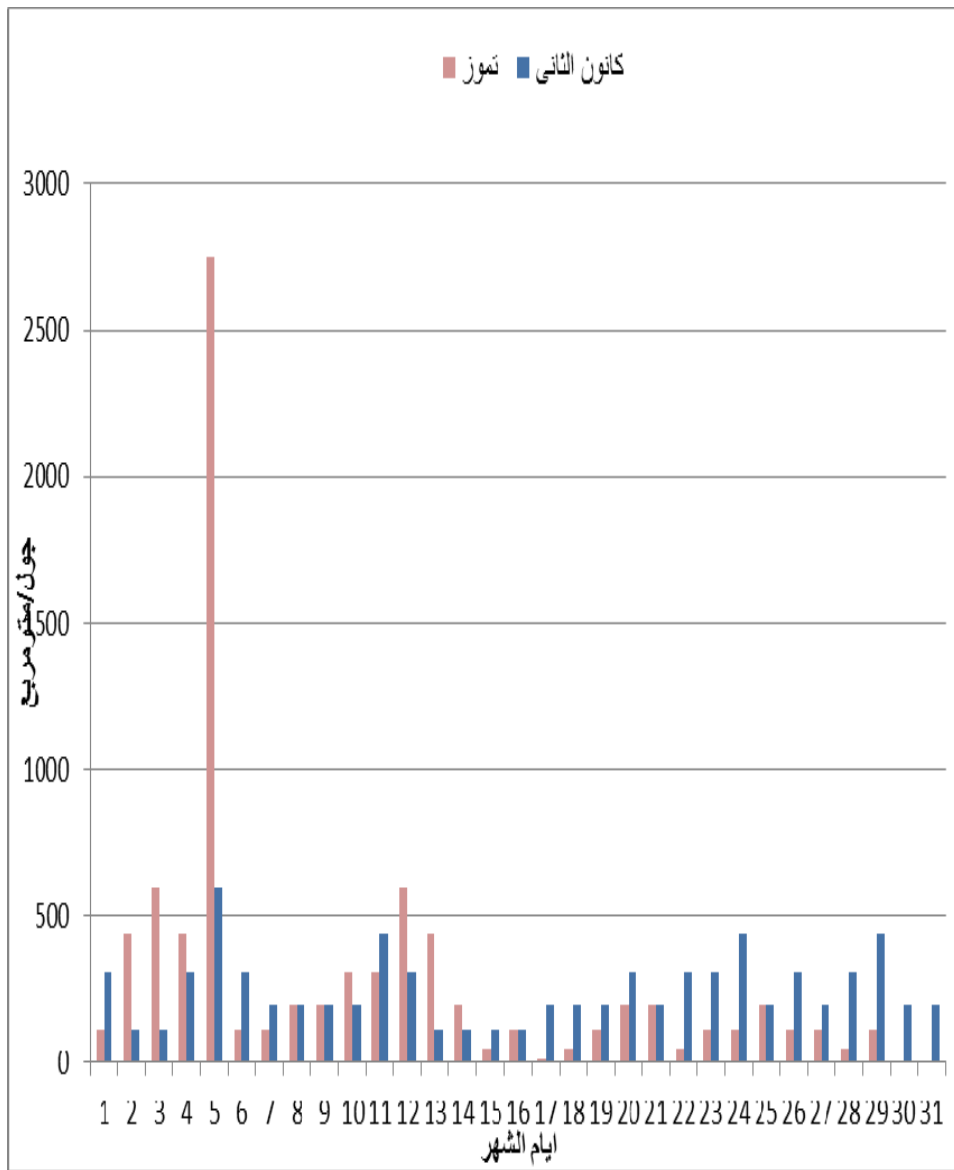


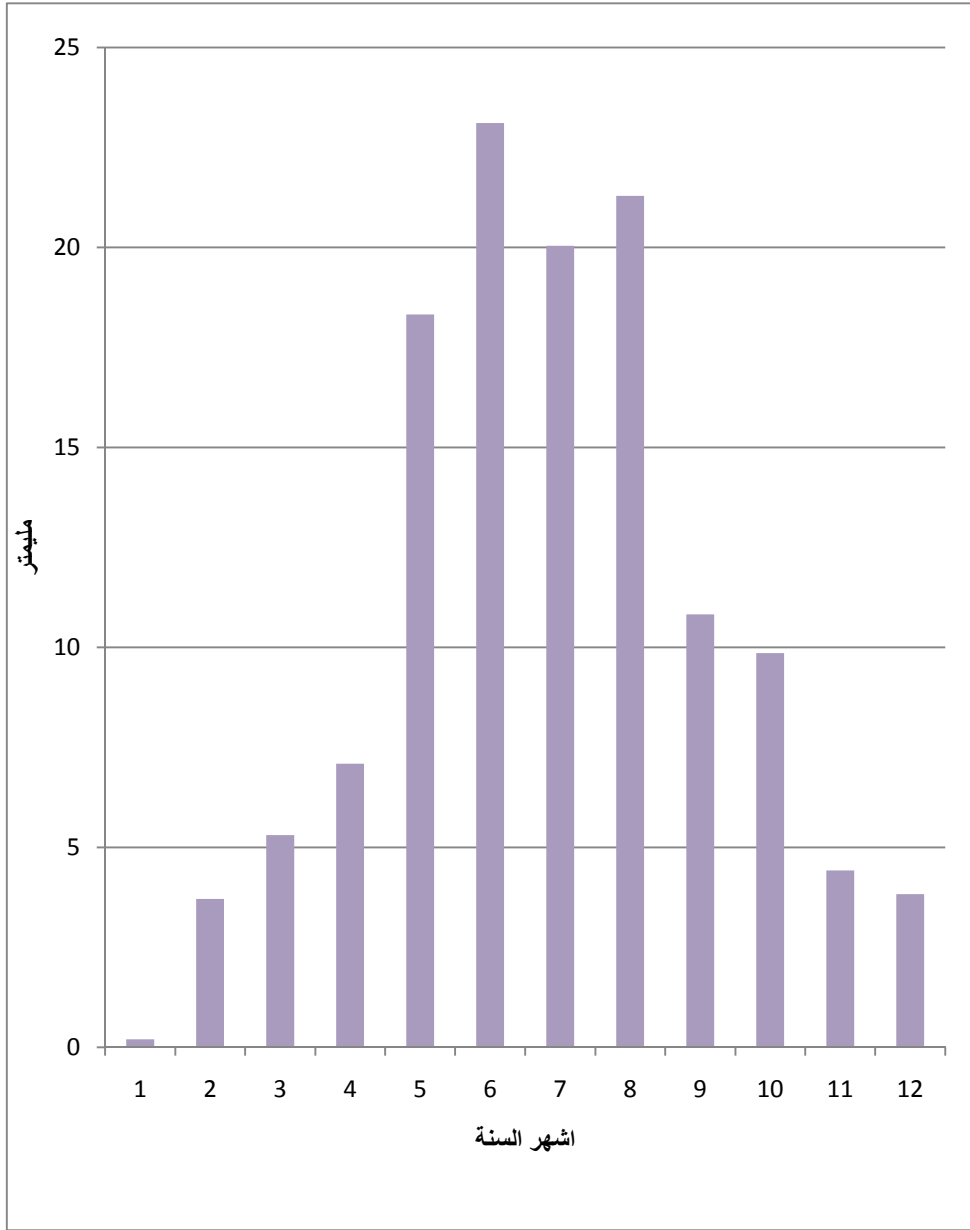
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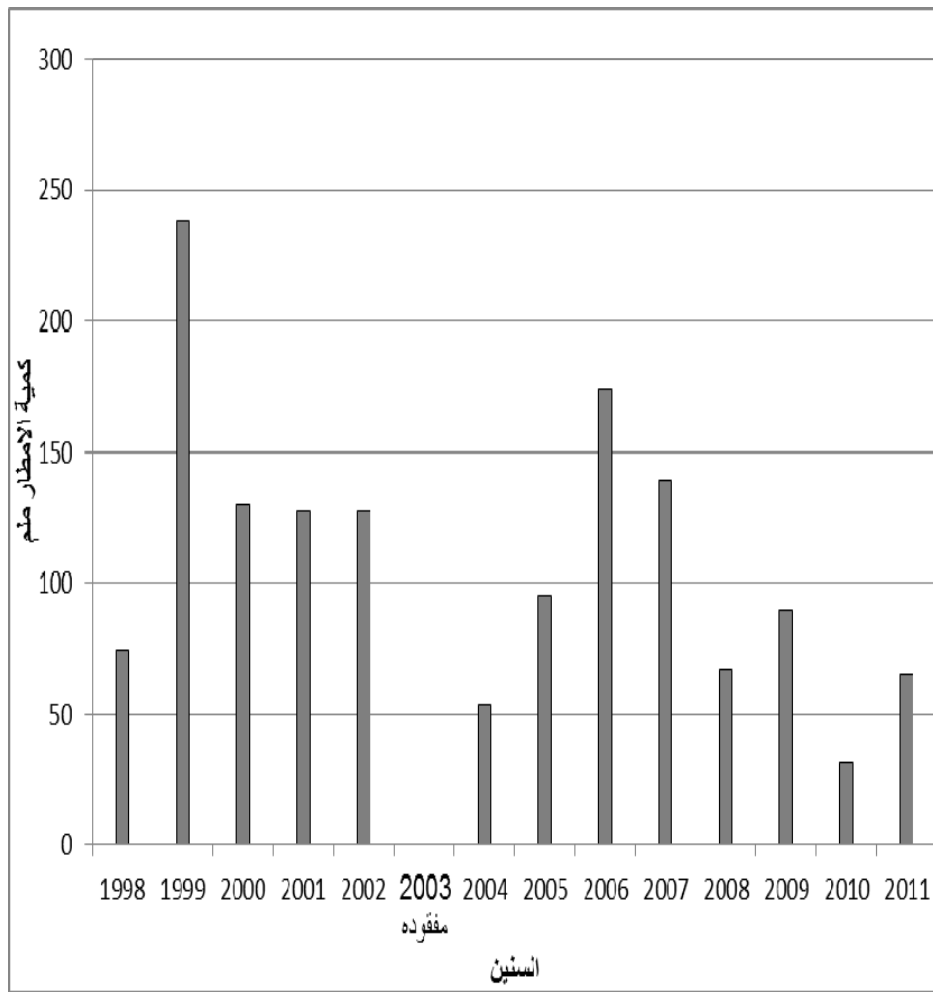


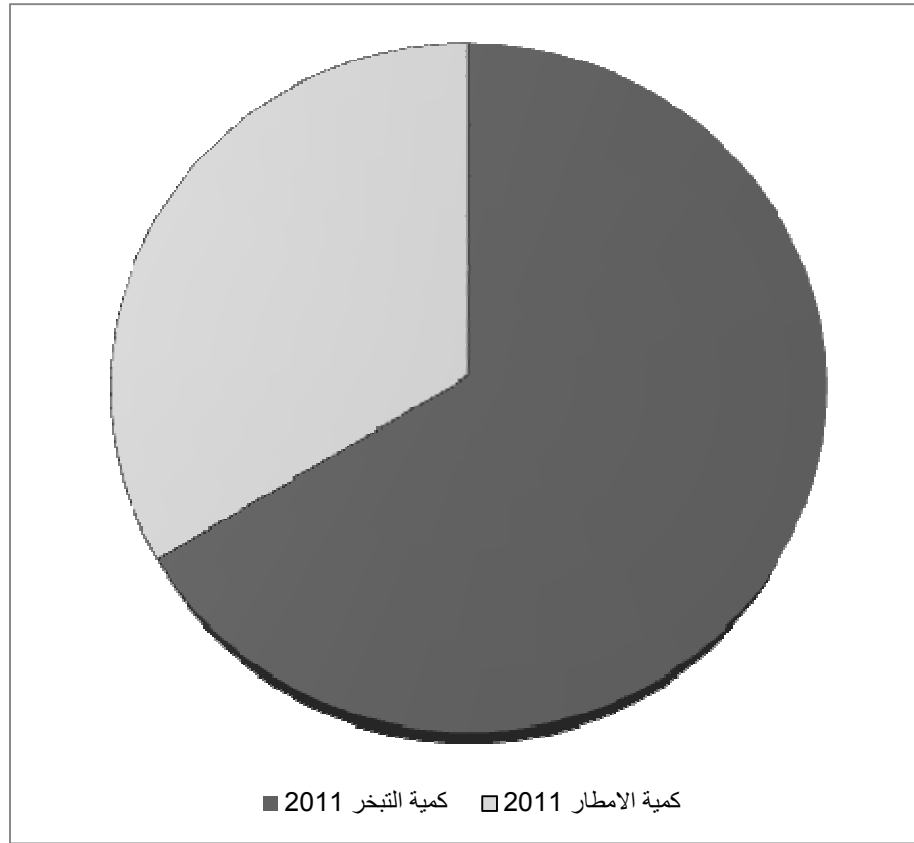
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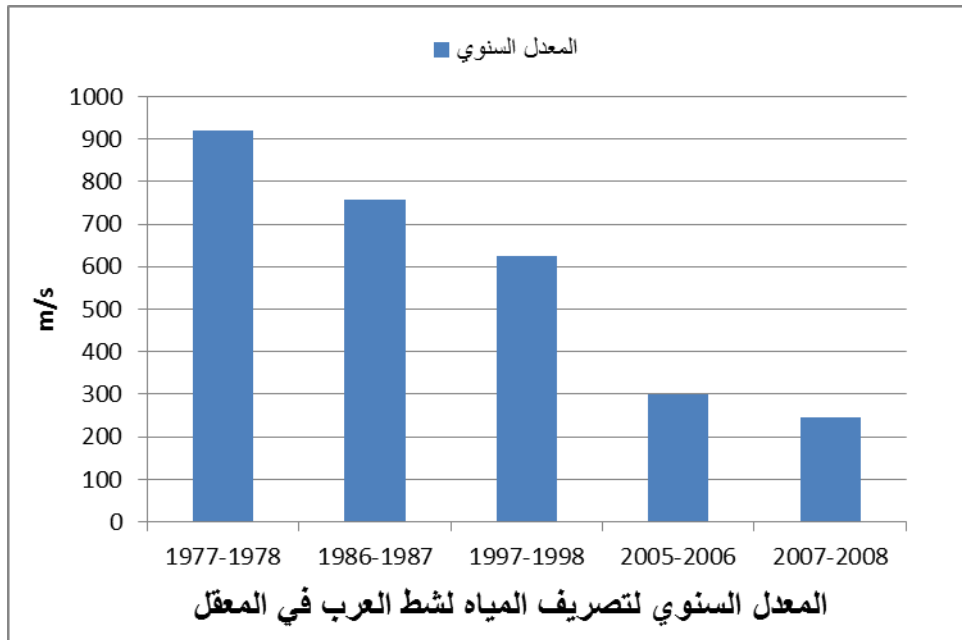


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0.24	0.12	0.36	4	20 06:00 pm
0.33	0.24	0.57	8	20 09:00 pm
0.25	0.21	0.46	7	21 12:00 am
.	0.09	0. 8	3	21 03:00 am
0.49	0	0.49		21 06:00 am
0.14	0.06	0.2		21 09:00 am

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.	.	0.496	4	09:04 am
.	.	0.460	6	12:04 am
.	.	0.251	5	15:14 pm
.	.	0.480	4	18:10 pm

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. -	.	0.118		09:01 am
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